Further Prehistoric and Romano-British activity at Poundbury Farm, Dorchester, Dorset

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Further Prehistoric and Romano-British activity

at Poundbury Farm, Dorchester, Dorset

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Location of the Archive

The archive is currently held at the offices of Wessex Archaeology Ltd, in Salisbury, under the project code 60027. It will be deposited with the Dorset County Museum, Dorchester in due course. An accession code will be assigned upon receipt.

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Summary

Excavations in 2013 completed the archaeological works associated with the development of the area to the north of Poundbury Farm, near Dorchester, Dorset. Investigation of the narrow strip of land, situated between two large areas excavated in 2007, revealed a number of features of prehistoric and Romano-British date.

Two Middle Bronze Age cremation-related features, possibly cenotaphs or *memento mori*, were found not far from a few other, similarly-dated cremation burials recorded previously. A scattering of worked flint came from later features. There remains a distinct lack of evidence for Iron Age activity on or in the near vicinity of the site.

It was possible to clarify the relationships between (and the development of) several of the large ditched-enclosures relating to the Romano-British community's apparently agrarian, predominantly sheep product and crop-based, economy. The very bottom corner of a previously unknown enclosure ditch was revealed along the northern edge of the site, demonstrating that this complex of enclosures continued beyond the investigated areas.

Small-scale craft and industry-related features generally appear later in the Romano–British sequence, as observed thus far. The remains of a well-built masonry-lined oven or kiln structure, featuring an iron door-post, had clearly been used, though it has not been possible to determine a particular function. In addition to the metal-working evidence recovered during

both phases of excavation, the more recently found antler offcut suggests some variety in craft-related activities.

A number of additional Romano-British inhumation burials were found in the northern part of the site. Three had been made in the local *Durotrigian* style – flexed and usually with a ceramic vessel or vessels – a tradition that has been proven to continue well into the period. A further 10 (nine found in a close-packed linear arrangement) held the remains of more standard Romano-British style burials, ie, coffined, extended and supine, and often wearing hobnailed footwear. Four of the burials had included complete lamb carcasses, laid along or at the end of the coffin, possibly related to their sheep-based occupations, or perhaps of some symbolic significance, eg, innocence and renewal. Regardless of the reasons, they are a most unusual find. One of these burials was even more remarkable; as well as being buried with a lamb offering, a child of around 10 years of age had been decapitated as part of the *post mortem* rites. Whilst decapitation burials are relatively common in the period, it is rare to find evidence for the ritual being performed on one so young. It is not possible to determine why they were treated in this manner, though it is likely that there was something that marked the child for special treatment in death.

As previously surmised, there is little evidence for occupation in the vicinity during succeeding periods. It appears that, from the post-Roman period until recently, the site formed part of a large expanse of farmland to the west of the settlement now known as Dorchester.

Further Prehistoric and Romano-British activity

at Poundbury Farm, Dorchester, Dorset

Introduction

The removal of a field boundary and overhead cables in 2013 allowed the completion of the programme of archaeological investigations undertaken ahead of a new phase of development on land to the north of Poundbury Farm, Poundbury, Dorchester (National Grid Reference 367291 90967; Figs 1–3). The 0.26 hectare strip of grassland, delineated by two of the areas excavated by Wessex Archaeology in 2007, is located a short distance to the north of Queen Mother Square, at an elevation of around 108 m above Ordnance Datum. This report presents the results of the most recent excavation – which include evidence for prehistoric and Romano-British mortuary and agricultural activity, and small scale industry dating to the latter period – and their relation to those presented by Egging Dinwiddy and Bradley in 2011.

Archaeological and historical background

Situated to the west of Dorchester, the Poundbury area has been subjected to a range of archaeological investigations in recent decades, revealing further evidence of the area's rich archaeological resource – particularly that relating to the prehistoric and Romano-British periods (see for example, RCHM(E) 1970; Sparey Green 1987; Farwell and Molleson 1993; Smith 1992; Smith *et al.* 1997; Sharples 1991; Gardiner 2003; Egging Dinwiddy and Bradley 2011, figs 1.1–2).

Evidence for prehistoric activity in the immediate vicinity of the site include residual Mesolithic worked flint, a series of pits of the Neolithic and Beaker periods, and a number of features spanning the Bronze Age, including an Early Bronze Age ring-ditch and pits, and a grave, pits and a number of other mortuary deposits of Middle and Late Bronze Age dates. Excavations have also established that the area was settled and the landscape farmed in the later part of the period. Nearby Iron Age hillforts include Poundbury Camp and Maiden Castle, where its seems that activity was concentrated in the Early and Middle phases of the period, ie,

away from the site and close surrounds (Sharples 1991, 260; Smith *et al.* 1997, 299; Gardiner 2003, 154–6; Egging Dinwiddy and Bradley 2011, 24, 69).

On the site, archaeological remains spanning the Romano-British period include a complex of large enclosures relating to stock control and arable farming. A small, long-lived settlement was located in the south-western part of the complex, including semi-subterranean structures (two successive masonry-walled examples) and associated with both domestic and, later in the sequence, small-scale craft and/or industrial activity. Similar, although more dispersed, evidence was encountered across the locale, represented by a scattering of grain-dryers, ovens/kilns and working hollows, pits and gullies.

As was characteristic for the period, the Poundbury Farm Romano-British inhabitants chose to bury their dead along the enclosure edges, away from the settlement area (particularly enclosure C; Fig. 2); the remains of the very young were more often recovered from domestic settings. Thirty-three Romano-British inhumation graves and a relatively unusual late phase urned cremation burial were excavated nearby, during the 2007 works. As is typical of the period, most of the burials had been made within coffins, the corpse laid in an extended and supine position; some wearing hobnailed footwear. One, made in a stone coffin, had been disturbed during antiquarian investigations, suggesting that there may once have been a prominent grave marker, such as a mound. A *Durotrigian* style burial rite had been chosen for the remaining individuals: their bodies had been laid on one side in a flexed or crouched position, some with a ceramic vessel (Egging Dinwiddy and Bradley 2011, 44; Farwell and Molleson 1993; Smith *et al.* 1997). The presence of a late Roman snakeshead armlet worn by one of the individuals buried in this fashion demonstrates that adherence to local burial traditions was long-lived.

Post-Roman and later activity on the site was limited to a handful of artefacts and a few features relating to agricultural land use, probably established in the Mid Saxon period (Keen 1984, 238) and continuing until the recent development.

Archaeological Results

Natural deposits

A 0.3 m thick layer of topsoil and up to 0.2 m of reddish-brown silty-clay subsoil overlay periglacially scarred chalk and patchy superficial deposits of Clay-with-Flints. A few patches of pale grey-brown clay with sand and pebble lenses were also noted, while solid Cretaceous

Upper Chalk bedrock (British Geological Survey online viewer) was revealed immediately below the topsoil in areas truncated by heavy ploughing and erosion.

Prehistoric

Two discrete and heavily truncated features, 9095 and 9104 (see grave catalogue, Appendix 1), were excavated in the northern part of the site, close to the locations of two of the four Middle Bronze Age cremation graves found in 2007 (Fig. 2; Egging Dinwiddy and Bradley 2011, 15–19, fig 2.8). The fill of cut 9095 (around 0.30 m diameter) contained redeposited pyre debris, including a small concentration of cremated human bone, whilst slightly larger cut 9104 (0.40 m diameter; Fig. 4) held the remains of an urn which in turn contained small quantities of cremated human bone and fuel ash throughout. Although it is possible that 9095 represented the very truncated remains of an unurned burial, the dearth of burnt bone suggests that both features might have been cenotaphs containing *memento mori* deposits (see McKinley below).

These, along with the small assemblages of worked flint and prehistoric pottery found residually in later features, are discussed in greater detail below.

Romano-British

The excavation revealed further evidence relating to the multi-phase Romano-British rural landscape within which the inhabitants lived, worked and buried their dead (Figs 2 and 3).

Largely revealed in 2007, enclosure A was confirmed as one of the first Romano-British enclosures on the site. The outer ditch (group 4407) can now be described as delineating the north, south and western sides of a sub-square area approximately 44 x 42 m. Within this, a trapezoidal area around 30 x 30 m was defined by ditch 4410. The resultant peripheral 'corridor' (there was no evidence for a bank) was between 2.5 m and 6.5 m wide and seemingly accessible from the east. Although masked by later features, it was possible to identify an entrance in the northern-eastern corner of the internal enclosure, where there were potentially associated internal divisions.

The previously identified maintenance of the outer ditch of enclosure A (Egging Dinwiddy and Bradley 2011, 28), necessitated by periods of neglect, was corroborated by at least one re-cut (context 9172) and two episodes of tree/over-growth at its southern terminal. Heavily truncated feature 9016, which contained scraps of late Roman pottery, animal bone and a decorated copper alloy disc (ON 7015; described below), is likely to have re-established the north-eastern entranceway. Probably during the late Romano-British period, the route into

the inner enclosure was narrowed or blocked by the insertion of a broad north-west–south-east ditch (group 9210), which encroached into the 'corridor' and cut the outermost edge of the inner ditch. The north-eastern entrance to the same 'corridor' was then obstructed by ditch 9006 (see below).

Enclosure B (group 4400) continued more or less as predicted, and stratigraphic evidence confirms that it post-dated at least parts enclosure A. Narrow gully 9163, recorded within enclosure B, may have been an internal division or, alternatively, a continuation of gently curving ditch 4161 (Fig. 2); later features have destroyed the stratigraphic evidence here. It was also proven that an earlier meandering landscape division (4405) continued across the area encompassed by enclosure B, although again, no finds were recovered.

Ditches 9211 (outer) and 9213 (inner) were revealed to the west and possibly the north of enclosure C, forming a 1.8–2.3 m wide peripheral 'corridor' (Fig. 3). A 3 m wide break in the south-west corner, between the ends of 9213 and 4407, may have served as a point of access into the 'corridor'. Ditch 4411 (Fig. 2) probably terminated at the interface between the two excavation phases, suggesting that there had not been any substantial division between the cemetery groups in this part of enclosure C (Fig. 2). Previously interpreted as part of enclosure C, ditch 4452 (found to have had a curving western extent) is now thought to have been associated with later working hollow 9205 a few metres away (see below).

A well-defined 0.45 m deep ditch containing residual worked flint was revealed in the northernmost part of the 2013 excavation area. It formed the south-eastern corner of an additional, previously unknown enclosure (9026, enclosure F; Figs 2, 3 and 5, Pl. 1). A feature partially revealed during soil-management works in 2007 probably represented the south-west corner, and so enclosure F could feasibly cover an area approximately 35 m square. A fragment from a rotary quern was recovered from the closest evaluation trench, which lay just beyond the enclosure's projected north-east corner.

A fairly large assemblage of pottery and much of the animal bone derives from the ditches of enclosures A and B, while various fills of enclosure A contained a variety of other artefacts including two brooches, a steelyard weight, antler-working waste, quern fragments and structural debris (see below).

Industry, agriculture and settlement

The remains of a late Romano-British oven (9032; Fig. 3; Pls 2 and 3) were found within enclosure B, cut into ditch 4405. The keyhole-shaped construction cut (2.64 x 1.14 x 0.54 m)

was lined with rough sandstone and shelly limestone blocks and a few flint nodules. Faced, mortar-bonded blocks lined the chamber, while the flue was more roughly constructed using coarser stones. A large iron bar, positioned vertically to the left of the entrance, was probably the remains of a post for the oven-door. The base and stone lining of the chamber were coated with fired clay and a 0.18 m thick charcoal-rich deposit containing fired clay inclusions was preserved on the floor. Like many such structures of the period, it appears that it was used for more than one purpose (see Wyles below). Abandonment and decay was represented by a 0.2 m thick layer of chalk rubble and silty clay, followed by the gradual silting of the flue (including a few Roman pot sherds, fired clay and charcoal). A chalk rubble layer represented the collapsed superstructure, after which silting recommenced. A coin (ON 7018; see below) from the latter deposit suggests its formation no earlier than the mid–late 3rd century AD. Parallel to the oven, at a distance of around half a metre, was a hollow (context 9072) similar in shape and size to the oven, although much shallower (0.08 m) and lacking any evidence for a structure. Its fill comprised compacted chalk rubble and silty-clay with (some possibly burnt) stone and pottery inclusions. This probable working hollow is similar to others in the vicinity (Egging and Bradley 2011, 27, fig. 3.2).

A large sub-rectangular feature to the north (9117/9205; 6.5 x 4.5 x 0.2 m) – interpreted as a working hollow associated with late Romano-British industrial activity – is similar to others in the vicinity (Figs 2 and 3). A layer of dark silty clay rich in charcoal, occupation debris and iron slag, filled the feature and extended beyond its edges. An apparently integral run-off gully was evident in the western corner, winding downslope into the partially infilled ditch delineating the northern edge of enclosure A; a similar gully was previously recorded on the opposite side, joining large quarry 4320. A line of three pits were situated around 21 m to the south-east of the hollow (9020, 9022 and 9024), and likewise post-dated the enclosure ditch. Ranging from 0.72–1.29 m long, 0.62–1.11 m wide, and from 0.09 m to 0.19 m deep, they contained similar charcoal- and finds-rich deposits, including late Roman pottery, slag, and two iron objects (ON 7019 and 7260, not illustrated).

Coinciding with the reported landscape and settlement modifications, and an increase in industrial activities, the north-eastern end of the ‘corridor’ around enclosure A was seemingly deliberately blocked by ditch 9006 (a continuation of 4431; Fig. 3). As well as a large quantity of pottery, this late Romano-British feature also contained possible stone roof tile, a few ceramic roof tile fragments, animal bone and a variety of iron and copper alloy objects (including a cleat and a corner bracket; see below).

A series of four intercutting pits blocked the north-western corner of the enclosure C peripheral 'corridor', and also cut ditch 9213. The earliest pits (9056 and 9068; Fig. 3) were each around 0.80 m in diameter with steep sides and a flat base; the least truncated was 0.85 m deep. Fills had generally accumulated gradually, although collapse of the sides of 9056 part-way through the infilling process was evidenced by a layer of chalk rubble. Larger pit 9030 (1.6 m diameter, 1.1 m deep) cut pit 9056 and was filled with a dumped deposit containing late Roman pottery and animal bone. An overlying tertiary deposit was then cut by steep-sided pit 9068 (1.75 x 1 x 0.65 m), whose initial fill was particularly dark but, like the subsequent fill, devoid of datable material.

Mortuary activity

Thirteen Romano-British inhumation graves were found in the northern half of the site, all associated with the enclosure complex (Figs 2, 3 and 5–8; Pls 4 and 5); they comprised a small cluster, a pair and two more dispersed outliers. Details are presented in the grave catalogue (Appendix 1).

The cluster of nine graves lay within the western part of enclosure C, a few metres from a group of similarly dated graves discovered during the previous excavation. Seven were arranged side-by-side in a linear fashion, six oriented east to west and one south-east to north-west. A further SSW to NNE aligned grave had been inserted along the eastern edge of the group, and the ninth had been cut (north-east to south-west) along the western side (Fig. 3). The paired graves, located less than a metre apart, were found 5 m to the south-east. The two outliers were found approximately 11 m further to the south-east, either side of the northern section of enclosure A. The careful arrangement of the group and a lack of intercutting indicates that the grave locations would have been readily apparent or recorded, perhaps by grave-markers for which no direct evidence remains.

All the burials within the cluster and one of the outliers had been made in the 'typical' Romano-British style, ie, extended and supine, sometimes with slight leg flexion. Complete Romano-British style graves were generally sub-rectangular in plan, with straight, steep to vertical sides and flat based. The well-defined cuts ranged between 1.73–2.73 m in length (average 2.34 m), 0.63–1.13 m (average 0.84 m) in width, and between 0.19 m and 0.85 m in depth (average 0.52 m). Evidence for coffins (iron nails, brackets and fittings) was present in all but the highly truncated grave 9052. Clusters of iron hobnails were found at the feet of seven

of the Romano-British burials, and a bone pin accompanied the remains of the subadult in grave 9052. Seager Smith discusses all these in more detail below, see also Appendix 1.

In addition to the above-described grave goods, four of the clustered Romano-British style graves (containing the remains of a juvenile and adults of both sexes) held the complete, articulated skeletal remains of immature sheep, positioned along the side or at the end of the coffin. Whilst sheep/goat remains have been recorded in some numbers in Late Iron Age and Romano-British funerary contexts in southern England, they are most commonly found as partial skeletons, ie, joints of meat (Morris 2011, 91). To have four examples of complete sheep from such a small group is, therefore, unusual, and has the added benefit of providing information regarding the season in which the burial took place. The inhumation burials made in the standard Romano-British style were those of male and female adults, a subadult possible female, a juvenile/subadult and a juvenile. The last had been carefully decapitated *post-mortem*, the severed skull and mandible placed between the knees as part of the burial rite (grave 9125; Fig. 6b). See below for more details.

The three remaining graves comprised a pair, situated 5 m to the south-east of the cluster of nine, and one made within the enclosure A 'corridor', 10 m further to the south-east. Each contained the remains of *Durotrigian*-style burials, ie, lying on one side, with the legs acutely flexed (Egging Dinwiddy and Bradley 2011; Farwell and Molleson 1993; Smith *et al.* 1997) (Fig. 3). The graves were sub-oval in plan with concave sides and bases, and at 0.1–0.2 m deep they were substantially shallower than their Romano-British style counterparts (0.19–0.85 m; average 0.52 m). In anticipation of the flexed position of the corpse, the *Durotrigian* graves were also relatively short, (1.11–1.40 m long), although their widths were not so different to those of the other graves (0.70–0.90 m). The remains from the paired graves (a juvenile and a man) were aligned approximately north-west to south-east, respecting the outer ditch of enclosure A. The third grave (9090; Fig. 5b), which contained the remains of a woman, was similarly influenced by the enclosure, although the body had been placed in the reverse direction; this was the only one from which grave goods were recovered: a mid-2nd-century samian cup, and an iron object. The legs of all three individuals were flexed to the right; the adults were found on their side, the juvenile's torso being found largely supine. Bone samples from the unaccompanied pair returned an early–mid Romano-British radiocarbon date (see below).

Finds

Finds from Graves

by Rachael Seager Smith

All but one (9052; Fig. 5a) of the extended Romano-British style graves contained wooden coffins, evidenced by iron nails and other fittings; full details can be found in the grave catalogue (Appendix 1). In graves 9094, 9097, 9125, 9133, 9154, 9195 and 9202 the coffins had been constructed using nails, with the number present in each grave varying from 14 to 42, generally outlining the coffin although with a tendency to cluster at the head/foot ends. Traces of mineral-replaced wood surviving on nail shanks indicate the use of planks 15–35 mm thick, while nails deliberately bent to right-angles indicate full thicknesses of 35–45 mm. No analysis of tree species was undertaken.

The coffin from grave 9126 was of more elaborate construction, with three iron angle brackets at each corner (two, one above the other, attached to the sides and the third to the bottom and sides of the coffin) and a centrally-positioned binding strip running across the underside of the base (Figs 7a–d), indicating that the coffin was 520 mm wide at this point. Angle brackets were also used on the upper corners of the coffin from grave 9199 (Figs 8a–b). These were all fixed with round or sub-square headed nails through perforations in the fittings, while at least one additional nail was found diagonally across the corner joint inside each angle bracket in grave 9126 and in the south-east and north-west corners of grave 9199. As with the examples from the main Poundbury cemetery (Mills 1993, 124) and the earlier excavations on this site (Marter Brown and Mepham 2011, 77), it is likely that these extra fittings were largely decorative, associated with the social and/or financial status of the individuals, as both graves also contained additional nails in numbers sufficient to hold the coffins together (33 from grave 9126, 19 from 9199).

Items placed as deliberate offerings occurred in six graves, one of *Durotrigian* style (9090) and the others of Romano-British type (9052, 9094, 9125, 9154 and 9195). In five of the graves, these comprised remains of sheep/goats – see Higbee below (Figs 5b and 6a–b; Pls 4 and 5).

The only other grave offerings consisted of a worked bone hair pin (*cf* Crummy 1983, 21–2, fig. 19, no. 252), probably of late 3rd or 4th century AD date, found in front of the thighs of the 10–15 year old buried in grave 9052 (Figure 5a; ON 7023), and a mid-2nd-century samian cup from the *Durotrigian*-style grave 9090. This vessel had been placed close to the feet of the adult female but was found in two pieces (Fig. 5b; ON 7024 and 7025). It is stamped

by Tetturo of Lezoux, so its manufacture can be dated to *c.* AD 135–165 (Hartley and Dickinson 2012, 53–4, die 3-a), thus providing further evidence for the continuation of this burial rite well beyond the Late Iron Age/early Roman period generally expected (Marter Brown and Mepham 2011, 75).

Hobnails and other metal fittings found around the feet of three men (graves 9154, 9195 and 9202), two women (graves 9094 – Fig. 6a, and 9133), an unsexed adult (grave 9126; Fig. 7a) and two youngsters (graves 9052 and 9125), suggest that these individuals were fully dressed at the time of burial (Phillpott 1991, 147), all made in Romano-British style. The number of hobnails (estimated from recognisable head fragments) varied from 15 (subadult in grave 9052; Fig. 5a), to 187 associated with the male in grave 9154. None were sufficiently well preserved to retain the shape of the shoe, but small fused groups suggest that the nails were generally closely-spaced with their heads almost touching, while the clenched shanks and traces of mineral-replaced leather indicate that the soles were 8–10 mm thick. The older female in grave 9094 (Fig. 6a), however, appears to have been buried wearing odd, or at least much repaired, boots/shoes. In addition to 33 hobnails, the outer edge of the heel and toe of the right boot/shoe was reinforced by two elongated boot plates or cleats, while just 16 hobnails were recovered from her left. Tiny copper alloy rivets appear to have been used to decorate the uppers of the nailed boots/shoes worn by the other adult female (grave 9133). No examples of decorated footwear of this type were identified in the main Poundbury cemeteries (Farwell and Molleson 1993), or at Lankhills (Clarke 1979; Booth *et al.* 2010), although examples are known from Allington Avenue (Henig and Morris 2002, 163, fig. 72, 6; grave 785) and from Maddington Farm, Shrewton (Montague 1996, 52) and Amesbury Down (Seager Smith in prep), both in Wiltshire, all associated with adult females of late 3rd or 4th century AD date.

Finds from Non-grave Contexts

Coins

by Nicholas Cooke

The two coins are copper alloy issues of the late Roman period; both have heavy pre-depositional wear. One (ON 7018; oven 9032), is an irregular or 'Barbarous' copy of a radiate *antoninianus* of the Emperor Claudius II (AD 268–270), while the second (ON 7155; ditch 9134), is a contemporary copy of a 'Fallen Horseman' issue of the House of Constantine (AD 350–360). Both are copies of 'official' coinage, possibly struck to compensate for gaps in the supply to Britain and to provide sufficient small change for the province's needs. It is unclear

whether these copies were officially sanctioned, but they are not uncommon finds, and seem to have circulated in the same fashion as officially struck coins.

Other metalwork

by Rachael Seager Smith

Copper alloy

Two copper alloy brooches and a pin from a hinged brooch (ON 7168) were found in the outer ditch of enclosure A. Both are of the late 1st or early 2nd century T-shaped headstud type; one has an incised bow (Fig. 9 (1); Hull T149A), while the other (Fig. 9 (2); Hull T149B) is decorated with blue and green enamel (Bayley and Butcher 2004, 165–6, 235).

Two fragmentary three strand cable type bracelets, probably of 4th century AD date, came from the inner ditch of enclosure A (ON 7000 (Fig. 10 (1)), ditch 9018 and ON 7113, layer 9165). Similar items are already known from the immediate area (Cool 1987, Mf. 2 B8, 7 and 8; Cool and Mills 1993, fig. 65, 7; Marter Brown and Mepham 2011, 75, fig.3.20). A possible pin shank fragment (ON 7180; outer ditch of enclosure A), two strips and a small sheet fragment possibly from one of the strips (ONs 7005, 7006 and 7010; ditch 9006), as well as an irregular, perforated disc with incised radiating lines around the edge (ON 7015; pit 9016) are also likely to be of Roman date. A small, heavily abraded dress-makers' type pin (ON 7052; ditch 9080, enclosure B), is probably medieval or later.

Lead

Two pieces of lead came from the inner ditch of enclosure A (ditch 9018). The biconical steelyard weight (Fig. 10 (2)) is approximately equivalent to 6 *uncia* (Roman ounces), while a large lump of waste indicates small-scale lead working in the vicinity.

Iron

Iron from non-grave contexts consists largely of nails (at least 78 nails/nail fragments) and hobnails (30; pits 9022, 9024 and 9056, working hollow 9205, gully 9119 and ditch 9144 of enclosure B). Other structural items include part of an L-clamp (Manning 1985, 132, pl. 62, R73), used for cavity walling (inner ditch of enclosure A), a joiner's dog (ditch 9134), an L-shaped fitting or corner bracket with one *in situ* fixing nail (ON 7014; ditch 9006) and a possible rove from a holdfast (*ibid.*, 134, pl. 62, R82; pit 9022). Other identifiable objects include a socketed hook (Fig. 10 (3)), perhaps used to lift buckets from wells (*ibid.*, 104, pl.

49, P30 and P31; inner ditch of enclosure A), an incomplete knife blade (upper fill of ditch 9210), a possible leatherworking awl (Fig. 10 (4)) and part of a socketed tool (working hollow 9205).

Catalogue of illustrated objects

Figure 9

1 Copper alloy T-shaped headstud brooch (Hull T149A). Fixed, partially broken headloop; hinged pin (missing) on iron axial bar. Wings decorated with incised grooves; headstud setting formed separately and riveted into place; bow decorated with longitudinal incised flanking grooves and short diagonals between a central pair. No evidence for footknob. Surviving length 40 mm. Outer ditch of enclosure A, segment 9158, context 9159, ON 7175

2 Copper alloy T-shaped headstud brooch (Hull type T149B). Fixed, slightly asymmetrical (possibly through wear) headloop, cast in one with bow. Hinged pin (missing) on iron axial bar; moulded footknob. Bow, wings and headstud decorated with enamel – blue/green lattice on bow, green in headstud setting, green lattice on wings flanked by incised grooves. 45 mm long. Outer ditch of enclosure A, segment 9158, context 9159, ON 7158

Figure 10

1 Copper alloy three cable-twisted bracelet. Tapering (4–6 mm thick), thicker end appears to be the terminal. Traces of solid cap soldered over the end survives. Approximately 50% present. 50 mm wide, 18 g. Late Roman. Inner ditch of enclosure A, segment 9018, context 9002 Fig. 10 (1)

2 Cast, biconical lead steelyard weight, parts of iron suspension loops surviving at both ends. 164 g; 52 mm high and in diameter. Inner ditch of enclosure A, segment 9018, context 9003, ON 7001 Fig. 10 (2)

3 Socketed iron hook. Socket is open with remains of iron fixing nail/rivet *in situ*; hook has flattened, rectangular cross-section. 85 mm long, 44 mm wide. Inner ditch of enclosure A, segment 9018, context 9005, ON 7003 Fig. 10 (3)

4 Iron awl with a tapering, square-sectioned tang (Manning 1985, type 4b, pl. 16, E11–24). 95 mm long. Hollow 9205, context 9121, ON 7109 Fig. 10 (4)

Slag

by Phil Andrews

The slag (1.657 kg) includes four tiny pieces (4 g) found with the cremation-related deposit in 9095, while the remainder was associated with late Romano-British pottery. With the exception of one relatively dense piece (41 g) of possible smelting slag (working hollow 9205), all the material is likely to derive from iron smithing. The assemblage, comprising a single smithing hearth bottom (SHB), fragmentary, amorphous and generally quite vesicular slag, along with very small amounts of fired clay, fuel ash slag and probable hearth lining, is comparable with that recovered in 2007 (Marter Brown and Mepham 2011, 103).

The SHB (425 g) came from the primary fill of the outer ditch of enclosure A. Elsewhere, the largest quantities (823 g) came from working hollow 9205, with smaller amounts from pits 9022 (206 g) and 9024 (203 g). Two small concentrations of smithing slag were recorded during the earlier excavations: the nearest, which included SHB fragments, located approximately 40 m north-east of working hollow 9205 and north of pits 9022 and 9024 (Marter Brown and Mepham 2011, 103; Figs 2 and 3). It remains unclear whether the slag indicates small-scale iron working in the vicinity, or is residual or redeposited material derived from activity further away.

Pottery

by Rachael Seager Smith

The assemblage is predominantly Romano-British, with a few Early/Middle Bronze Age pieces. Sherds survive in moderate condition, but are mostly very fragmentary (mean sherd weight 11.8 g**)**.

In line with previous work (Leivers 2011; Seager Smith 2011), the whole assemblage was subject to a quantified scan. Fabrics were defined by predominant inclusion types (eg, grog-tempered ware), or assigned to broad, ‘catch-all’ groups (eg, greywares, oxidised wares) or specific sources and styles (eg, New Forest colour-coated ware). Fabric totals are given in Table 1. Within each fabric, the number and type of any diagnostic vessels were recorded, while spot-dates were assigned to both individual wares and to context groups as a whole.

Early or Middle Bronze Age

The lower part of a thick-walled, vertically-sided vessel was found in grave 9104 (Fig. 4), where it had been used to contain cremated human remains. It is made in a soft, grog-tempered

fabric, with occasional quartz sand inclusions, similar to Cleal's fabric G1 from the Dorchester By-pass (1997, 88 and 224) and fabric A from Poundbury (Smith 1987, 114). The surviving part of this flat-based vessel (180 mm in diameter, 90 mm high) is not sufficiently diagnostic to date with any precision, especially as the use of grog as a tempering agent has a long currency in south Dorset, beginning with the Beakers and Collared Urns of the Early Bronze Age, and continuing into the Deverel-Rimbury and associated ceramic forms of the Middle Bronze Age (Cleal 1997, 88).

Eight other plain body sherds in similar grog-tempered fabrics may also belong within this period but they were found residually in Romano-British features (pit 9117 and the backfill of graves 9079 and 9126).

Romano-British

In common with other assemblages from Dorchester (Davies and Hawkes 1987, 117–28; Seager Smith 1992; 1993a and b; 1997; 2002; 2008; 2011; Seager Smith and Davies 1993), this material is dominated by Black Burnished wares from the Wareham/Poole Harbour region, with a very limited range of Continental and regional imports and other local wares. The relatively low mean sherd weight (11.4 g) is also in keeping with other assemblages from the immediate vicinity (eg, Seager Smith 1997, 102, table 8 and 226; 2011, 97).

The samian derives from Southern and Central Gaulish sources and includes sherds from form 18, 18/31 and 31 dishes and bowls, form 33 and 35 cups and bowl forms 29, 37 and 38. Two vessels (plain South Gaulish body sherds – feature 9085; Central Gaulish form 37 bowl – ditch 4407), have post-firing perforations indicative of repair with metal staples. In addition to the stamped form 33 cup described above (grave 9090), two other stamps were noted, both incomplete. One, on a Central Gaulish form 31 base (ditch 9158), reads]TIVI:M, die 2a of Aestivus, also of Lezoux and is dated to *c* AD 155–195 (Hartley and Dickinson 2008, 87–91), while only a single letter of other survives, V[, on a Central Gaulish dish base (feature 9212).

Other imported tablewares are limited to two pieces of probable mid-1st century AD Terra Rubra (backfill, grave 9090) and a late 2nd–3rd century AD *Moselkeramik* beaker sherd (layer 9121). Amphora came from ditch 9008 and the backfill of grave 9154. Both are of oil-carrying, southern Spanish Dressel 20 type of mid-1st to mid-3rd century AD date. Mortaria are uncommon, with all but one of the north Gaulish sherds being from a single vessel (Bushe-Fox 1913, 77, fig. 19, 26–30), dated to *c.* AD 80–150 (ditch 9135). The remaining north Gaulish

sherd was from gully 9172, while the rim of a 2nd century AD wall-sided form from the Rhineland (Seager Smith and Davies 1993, 222, WA 315) was found in ditch 4400.

The South-western fine micaceous greyware sherds are all from a single globular-bodied jar with an upright rim (ditch 4400). These late 1st to late 2nd/early 3rd century AD wares form part of the standard range seen in Dorchester and widely across south-western Britain (Seager Smith and Davies 1993, 283). Although all from late 3rd to 4th century AD red-slipped ware bowls, none of the Oxfordshire products were sufficiently complete to assign to particular forms. The New Forest wares include pieces from red-slipped bowls (six sherds) and dark colour-coated flagons and beakers.

No featured sherds were recorded amongst the oxidised wares, a 'catch-all' fabric group used for all unprovenanced white/orange/buff firing fabrics. These also form part of the standard range seen in Dorchester (Seager Smith 1993 a and b; 1997; 2002; 2008; Seager Smith and Davies 1993) and span the entire Roman period. Most are probably from flagons although a few bowl sherds may be included.

One sandy grey coarseware sherd was found in ditch 4400, but otherwise the remainder of the assemblage comprises South-east Dorset (Wareham/Poole Harbour) Black Burnished wares, South-western Black Burnished wares and the coarse, shale-rich, often oxidized fabric now known as South-east Dorset orange wiped ware (Gerrard 2010). Fabric proportions for this site and comparisons with the previous Poundbury Farm assemblage (Seager Smith 2011, 98, table 5.9) and others from the Dorchester area are shown in Table 2. Jars are represented by the widest range of types (Seager Smith and Davies 1993, types 1, 2, 3, 4, 6, 7, 9, 12, 18, 46 and 47) spanning the entire period, with smaller numbers of 1st to 2nd century AD round-bodied open bowls (types 13, 15, 16, 33, 40 and 73), and straight-sided bowls and dishes (types 20, 22, 24 and 25) dating from the mid-2nd century AD onwards. Miscellaneous forms include lids (type 26), flagons (type 29) and a flagon/jar (type 63). The sizes and proportions of the vessels, the techniques of surface treatment and decoration follow the generalized 'rules' described elsewhere (Farrar 1973, 76–8; Gillam 1976; Williams 1977; Davies and Hawkes 1987). One handled jar (Fig. 11 (1)) is larger and has a wider handle than average for this form, although a comparable example is known from Greyhound Yard (Seager Smith and Davies 1993, fig. 146, 266). One new form (designated type 109; Fig. 11 (2)) occurs in this assemblage. It is represented by a single well-burnished example in the Wareham/Poole Harbour fabric, found alongside others vessels of mid/late 1st century AD date. The form may therefore represent a forerunner of the standard straight-sided, flat-flanged bowl/dish (type 22). Other

less common forms include an internally lid-seated, externally cordoned rim from a large flagon or narrow-necked jar (WA 63) and shallow, imitation Gallo-Belgic dishes (WA 73; three examples eg, Fig. 11 (3)).

With the exception of the unnaturally high levels of imported mortaria caused by the freshly broken North Gaulish vessel from ditch 9135, the relative proportions of the main fabric families in this and other Dorchester assemblages are directly comparable (Table 3). When considered together with the material from the earlier excavation (Seager Smith 2011), the combined Poundbury Farm assemblage most closely resembles that from the Western Link road, its nearest neighbour, while other rural sites in the *Durnovaria* hinterland (Alington Avenue and the Dorchester By-Pass sites) show similarly high levels of coarsewares with lower levels of imported fine- and specialist (amphorae and mortaria) wares than seen in the urban assemblages from Greyhound Yard, Wessex Court and the former hospital site. The peripheral, 'sub-urban' County Hall assemblage falls somewhere between. The British finewares (predominantly New Forest and Oxfordshire wares) remain relatively steady throughout, at 2–3% of the assemblages, except for the By-Pass, but here, only one site (Maiden Castle Road: Seager Smith 1997, 115–116) extended into the late Roman period. So although the pottery from the 2013 excavations clearly increases the size of and augments the overall Poundbury Farm assemblage, nothing within it changes the dating or interpretation of the features from which it was recovered.

Catalogue of illustrated sherds

Figure 11

1 High-shouldered, pulled bead rim jar with ‘ear-shaped’ strap handles (WA 46). South-east Dorset Black Burnished ware. 2nd–3rd century AD. Enclosure A ditch 4407, segment 9158, context 9160

2 Straight-sided dish (or possibly lid), with flat, inward sloping rim and a flat base (WA 109). South-western Black Burnished ware. Mid–late 1st century AD. Enclosure B ditch 4400, segment 9080, context 9081

3 Shallow, imitation Gallo-Belgic dish (WA 73). South-western Black Burnished ware. Mid/late 1st century AD. Enclosure A ditch 9207, segment 9191, context 9198

Worked and Burnt Flint

by Phil Harding

Two pieces (116 g) of burnt, unworked flint came from the Early/Middle Bronze Age urned cremation burial 9104, while 142 pieces of worked flint came from 37 contexts predominantly of Romano-British date, with four pieces (81 g) unstratified. This low density material, averaging just four pieces per context, is dominated by flakes (82%), with a small number of scrapers and retouched pieces (9%), blades (7%) and just two cores (1%). Edge damage occurs on most pieces and surface patina varies within each group, confirming that all but the smallest amount had been reworked into later features. No microdebitage (chips) or refitting material was found.

The assemblage forms a representative sample of flint working from the area, one well-documented by stratified collections from Early Neolithic to Bronze Age pits (Edmonds and Bellamy 1991; Woodward 1991; Woodward and Bellamy 1991; Bellamy 1997; Harding 2004; 2010; 2011; Gardiner *et al.* 2007). The Early Neolithic tradition of utilising large nodules of flint, which are prevalent in the area, for core tool production, is represented in this collection by a probable core tool rough-out from the outer ditch of enclosure A (ditch 4407). The remainder reflects the residue of flaking that might be expected in domestic situations, represented among the retouched tool component by scrapers and knives.

Building Materials

by Rachael Seager Smith

In common with the 2007 assemblage (Marter Brown and Mepham 2011, 102), Romano-British ceramic building material occurred in only very small quantities (33 pieces, 2689 g). Detailed fabric descriptions were not recorded, but a range of types, varying from pale orange to orange-red, are represented. Most are relatively fine-textured, with some particularly poorly wedged, while others contain sparse fragments of flint or other coarse inclusions. Six fragments came from *tegula* and *imbrex* roof tiles, while the thickness of two further pieces, from the inner ditch of enclosure A (ditch 9207), suggests they derive from ‘bricks’. The remaining pieces are not attributable to specific types.

Three small fragments of fine-grained sandstone could represent polygonal roof tiles (ditch 9006, structure 9032, working hollow 9205), but all were too small to permit positive identification. Small, abraded, featureless fragments (87 g; oven 9032, pit 9030, the outer ditch

of enclosure A and grave 9202) of fired clay may also be of structural origin, from wall daub or oven/hearth linings, for example.

Other Finds

by Rachael Seager Smith

Three pieces (6 g) of Romano-British blue/green glass came from the ditches of enclosure A (ditches 9207 and 9209). One is an everted, flame-rounded rim, 80 mm in diameter, while a second has an applied cordon; the third is a featureless body wall fragment. Part of a small, shallow Purbeck limestone mortar (150 mm diameter, 50 mm high), also came from the outer ditch and is of common Romano-British form (eg, Mills and Woodward 1993, figs. 81–2). Other finds from this enclosure include a red deer antler off-cut from object manufacture, a small piece (459 g) from a Greensand rotary quern and eight fragments of marine shell (oyster and cockle), probably representing food remains.

Animal Bone

by L. Higbee

Introduction

The assemblage comprises 1114 fragments (or 7.488 kg) of animal bone, however once conjoins and Associated Bone Groups (ABGs) are taken into account this falls to 523 fragments (Table 4). There are two main components to the assemblage: general disarticulated animal bones, the majority of which came from enclosure ditches, in particular those forming enclosure A; and whole articulated sheep carcasses deposited as grave goods (Table 5).

Methods

The following information was recorded for each identifiable fragment; species, element, anatomical zone (after Serjeantson 1996, 195–200; Cohen and Serjeantson 1996, 110–12), anatomical position, fusion state (after O'Connor 1989; Silver 1969), tooth eruption/wear (after Grant 1982; Halstead 1985; Hambleton 1999; Payne 1973), butchery marks (after Lauwerier 1988; Sykes 2007), metrical data (after Von den Driesch 1976; Payne and Bull 1988), gnawing, burning, surface condition, pathology (after Vann and Thomas 2006) and non-metric traits. This information was directly recorded into a relational database and cross-referenced with relevant contextual information.

The number of identified specimens present (or NISP; Table 4) has been adjusted to take account of ABGs (after Grant 1984, 533; Morris 2008, 34–5; 2010, 12; 2011), which have been counted once to avoid over-inflating the significance of certain species. No goat bones or teeth were positively identified. However, a few sheep elements were identified and therefore all undifferentiated caprine elements are assumed to belong to sheep. This term will be therefore used throughout this report.

Results

Bone preservation is extremely good, cortical surfaces are intact and fine surface details such as cut marks, are clear and easily observed. Gnaw marks were observed on less than 4% of fragments. This indicates that the assemblage has not been significantly biased by the bone chewing habit of scavenging carnivores.

Thirty-eight percent of fragments can be identified to species and skeletal element. Bones from livestock species predominate and account for 86% NISP. Sheep/goat bones are common and were clearly the mainstay of the rural economy (Table 4). In terms of relative importance, sheep/goat account for 66% of livestock, compared to just 27% for cattle and 7% for pig. The pattern of relative frequency is consistent with the animal bone evidence recovered from previous excavations at the site (Buckland-Wright 1983, 129; Grimm 2011, 134). Sheep-farming is particularly suited to the well-drained chalklands of the area.

Sheep/Goat

All parts of the sheep carcass are present in the assemblage of disarticulated bones from the enclosure ditches and pits. This suggests that sheep were brought in from the surrounding fields to be slaughtered and butchered for local consumption. There are no concentrations of bone waste from different stages in the carcass reduction sequence or from specialist craft/industrial activities (eg, bone-working, tanning etc.) to suggest different zones of activity within the two enclosures, rather the deposits of animal bones are a mixture of waste of different origins.

Common bone elements include mandibles, metapodials, radii and tibiae. The remains are from a minimum of at least 13 individuals. Butchery marks were evident on only two sheep bones, a metacarpal and tibia. The location of the marks suggests that they were made during skinning and portioning, respectively. Pathological changes around the proximal articular surface of a radius, are consistent with the condition commonly referred to as ‘penning elbow’,

which is thought to be caused by over-crowded conditions in holding pens, although other causal factors are also likely.

Young lambs were deposited as offerings in four graves (Table 5). Two were deposited in the graves of adult males, one in the grave of an adult female and the fourth in that of a juvenile. All four lambs were placed outside of the coffin, either adjacent to the right arm (graves 9094 and 9154), alongside the left leg (grave 9125) or near the feet (grave 9195). The youngest lamb (ABG 7167) came from the grave of the juvenile and was aged between birth and 2 months (MWS A after Payne 1973). The lambs (ABGs 7104 and 7261) in graves 9094 and 9195 were both aged between 2–6 months and the lamb (ABG 7197) from grave 9154 was aged between 6–12 months (MWS B and C). The lambing season generally takes place between March and April but can occur later in certain breeds (Jones 2006). It is possible therefore to suggest that the juvenile was buried in spring, while two of the adults were buried in the spring or summer, and the third adult burial probably occurred in the autumn or winter months.

Other possible grave goods include a left forelimb from 9090, a *Durotrigian*-style grave located between the inner and outer ditches of enclosure A, and a right foot from 9154, the grave of an adult male in the northern cemetery group. Both funerary practices (ie, the deposition of whole lamb carcasses and meat joints) are consistent with those previously recorded at Poundbury (Buckland-Wright 1993, 110–1; Grimm 2011, 137).

The overall mortality pattern for sheep which is based on a sample of 20 mandibles shows two main peaks of slaughter amongst older animals aged between 3–4 years and 6–8 years (MWS F and H). The remaining mandibles, including those from graves, are from younger animals aged between birth and 2–3 years (MWS A–E). The pattern suggests that sheep were managed primarily for wool and possibly milk. Epiphyseal fusion data also shows that with the exception of the lambs from graves, the majority of post-cranial bones are from adult animals. This is consistent with the findings from previous excavations at the site which suggested a mixed husbandry regime (Buckland-Wright 1983, 130; Grimm 2011, 135).

Cattle

The assemblage of disarticulated cattle bones came mostly from the outer ditch forming enclosure A. All parts of the cattle carcass are present and once again this points to on-site processing of carcasses for local consumption. Common elements include mandibles and humeri, and these are from a minimum of at least eight individuals. Butchery evidence was observed on four cattle bones. This included cut marks on the medial side of a mandible below

the articular process, and chop marks through the distal shaft of a tibia and the mid-shaft of two metapodials.

Seven cattle mandibles were recovered, most of which are from adult, old adult and senile animals (MWS H and I after Halstead 1985) that were probably maintained for milk, traction and as breeding stock. Indeed the presence of a young calf aged just 1–8 months (MWS B) supports the notion that dairying was part of the husbandry strategy. Epiphyseal fusion data also shows that the majority of post-cranial bones are from fully mature animals. Mortality patterns indicative of a focus on secondary products were recorded from the earlier excavation phases (Buckland-Wright 1983; Grimm 2011, 135).

Pig

The small pig bone assemblage mostly consists of cranial fragments recovered from the inner ditch of enclosure A. The elements include three male canines and the mandible from a 14–21 month old animal (MWS D after Hambleton 1999). A few pig bones (and a mutton joint) were also recovered from the backfill of *Durotrigian*-style grave 9090 located between the inner and outer ditches of enclosure A and 9125, one of the graves in the northern cemetery group containing a lamb (see Table 5). Buckland-Wright (1993, 110–1) noted that graves containing food offerings of pork were exclusively *Durotrigian*-style graves however this is not born out by the findings from the northern cemetery group, in particular grave 9125.

Other species

Less common species include dog, red deer, cat and domestic fowl, as well as birds and other animals living on or around the site. These include small birds (ie, *passerine* family), rodents and frogs. The dog and red deer remains are from enclosure A, the bird bones are from graves and the cat bone is from a pit. Red deer is represented by two off-cuts of antler from the basal part of the beam. Both pieces had been reduced using a saw, firstly to split the antler into workable segments, and then to remove sections for further working. One of the pieces of antler has a 10.87 mm hole drilled through the surface of the burr and into the beam. One side of the beam had also been shaved to remove the rough outer surface in preparation for further more detailed working.

Conclusions

The small animal bone assemblage described above adds to the existing corpus of information relating to animal husbandry regimes, diet and funerary practices at Poundbury during the Romano-British period and confirms much of what has already been established about these aspects of the site.

Sheep-farming was the mainstay of the rural economy and is well-suited to environmental conditions of the area. Cattle were also of some importance and both species were managed for a range of secondary products. Indeed products such as milk, wool and in the case of cattle, traction and manure appear to have been more important than meat production.

Young lambs were sacrificed and deposited in graves as offerings. Occasionally joints of mutton or pork were gifted. The use of lambs for this purpose is unsurprising given their ready availability as the most common livestock however the powerful symbolism (eg, purity, innocence and renewal; Tresidder 1997, 118; Werness 2004, 250–1) behind this selection should not be overlooked in this context.

Unburnt Human Remains

by Kirsten Egging Dinwiddy

Introduction

Human bone from 13 Romano-British inhumation graves (Fig. 3), along with a small quantity of redeposited bone from some of the grave backfills, was analysed. The 10 burials made supine and extended (nine coffined) are considered to be of mid to late Romano-British date, while radiocarbon dating has confirmed early to mid-Romano-British dates for two of the three burials made in the local *Durotrigian* style, i.e., uncoffined and placed on one side with the legs flexed (see also above). All are closely associated with the 41 burial remains excavated nearby in 2007 (Egging Dinwiddy 2011).

Methods

Standard methodologies were employed to assess the condition of the bone and to estimate the age and sex of individuals (McKinley 2004; Bass 1987; Beek 1983; Scheuer and Black 2000, Buikstra and Ubelaker 1994). Skeletal indices were calculated and the presence or absence of various non-metric traits was noted (Bass 1987; Berry and Berry 1967; Brothwell 1972, 88; Brothwell and Zakrzewski 2004; Finnegan 1978; Trotter and Gleser 1952; 1958). Further

observations regarding morphology and pathology were described, and photographed and x-radiographed where appropriate. Details are in the archive.

Results

A summary of the results is presented in Table 6. The current assemblage has been considered without temporal subdivision due to the small sample size and closeness in date. Rates and observations from the entire Poundbury Farm assemblage (2007 and 2013 material) have also been included throughout and are referred to as 'combined'.

Horizontal truncation was largely the result of agricultural activity, and led to the greater fragmentation and/or disturbance of the burial remains held within the shallowest graves. As reported in reference to the 2007 assemblage, bone condition is highly variable (grades 1–5), even within a single skeleton – probably reflecting a multiplicity of burial micro-environments. In most cases more than half of the skeleton had survived, with poor preservation the principal cause of bone loss.

Demography

A minimum of 14 individuals (MNI) is represented (Table 7), bringing the Poundbury Farm combined total to 55 (Table 8; Egging Dinwiddy 2011). Immature individuals (<18 yr) constitute 35.7% of the 2013 assemblage and 32.7% of the combined; both within the range often recorded for archaeological assemblages (Grauer 1991). As is typical of the period, neonates and young infants were found in domestic and agricultural settings excavated in 2007, rather than in formal cemeteries (Philpott 1991, 97–102; Struck 1993; Scott 1999, 115). The slight preponderance of adult females (44.4%) compared to adult males (33.3%) is maintained when the data sets are combined – 48.6% female *vs* 40.5% male. Whilst similar proportions of each sex were afforded the more standard Romano-British extended burial, the local *Durotrigian* style rite was more likely to have been chosen for a woman (3.5:1 combined assemblages). Overall, most adults had survived into their 40s; several had been older still.

Skeletal variation

Skeletal variation, may be related to factors such as genetics, nutrition and/or disease, trauma and biomechanics (Berry and Berry 1967; Tyrrell 2000). Comparisons within and between populations may enable inferences to be made regarding homogeneity, health, nutrition and life-ways. A summary of the main skeletal indices, including stature, is presented in Table 9.

The combined stature estimates for both sexes from Poundbury Farm are comparable to those calculated for the Poundbury Camp assemblage (Molleson 1993, 167–8), although the women achieved a slightly greater height, on average, than other local counterparts (Alington Avenue and Little Keep, Dorchester (Fig. 1); Waldron 2002, 151; Egging Dinwiddy 2009, 70) and Romano-British females in general (1.59 m; Roberts and Cox 2003, 163). Conversely, the average male stature fell below those reported for the same sites and the period average, as calculated by Roberts and Cox (1.69 m; *ibid.*, 163).

The previously identified trend towards mesocrania (average-shaped skull) within the male assemblage is maintained, as is the female propensity for long-headedness (dolichocrany), reflecting the pattern seen in the cranial indices from other Dorchester assemblages, apart from Poundbury Camp, where a greater proportion of females had broader skulls (Molleson 1993, 167–8; Egging Dinwiddy 2009, 70; Waldron 2002, 151).

Despite widely varying scores, the femora from both sexes at Poundbury Farm provide an average score within the 'flattened' or platymeric range, as seen in some of the Dorchester cemeteries; the Little Keep femora, however, were only moderately flattened, perhaps reflecting their suggested trade-related rather than labouring occupations (McKinley and Egging Dinwiddy 2009, 35).

The average platycnemic indices indicate a relatively 'normal' degree of medio-lateral flattening of the tibia shaft (eurycnemic or broad), corresponding with the findings from Little Keep and the female assemblages from Poundbury Camp. The male tibiae from Poundbury Camp and those belonging to both sexes from Alington Avenue are slightly flatter, on average.

The robusticity indices show variation within each of the sexes, though males were generally more robust. The scores are close to those recorded for Little Keep (Egging Dinwiddy 2009, 70) and with many other British archaeological assemblages (pers. obs.).

Less commonly seen examples of non-metric traits are described below; others are listed in Table 6 and in the archive.

The canal within the base of the skull that transmits the hypoglossal nerve, which enervates the muscles of the tongue, is most commonly a single aperture. Whilst bony division of this canal into two is not uncommon, further partitioning is rarely observed (Robinson 1918, 277; Mann *et al.* 2016, 421, 426). It is of significance, therefore, that tripartite canals are present in the two skulls (9089 and 9132) from the 2013 excavations. Although buried in different styles, one as a singleton and the other within the cemetery group (Fig. 3), the sharing of such a trait strongly suggests a familial link.

The exceptionally unusual presence of an accessory tibial nutrient foramen (Kulkarni *et al.* 2015; Tubbs *et al.* 2016, 95), manifest unilaterally in adult males 9155 and 9196, is likewise compellingly suggestive of shared ancestry. Both had been buried within the linear cluster of graves and both burials had included complete lamb carcasses (Fig.3).

A developmental fibrocartilaginous coalition of the plantar portion of the lateral cuneiform and third metatarsal was observed in the remains of the right foot of adult male 9155 (Pl. 6). Coalitions in this location have rarely been reported (Day *et al.* 1994; Stevens and Kolodziej 2008; Abda *et al.* 2017), although the anomaly was observed in both feet of an elderly, Romano-British female from Amesbury Down, Wiltshire (Egging Dinwiddy in prep). A bipartite hallux sesamoid was observed amongst the left foot bones of adult female 9089. Whilst some authors claim rarity, or at least rare publication (Saxby *et al.* 1992; Kurashige and Suzuki 2017), others have described prevalence rates of between 4% and 33% (Aseyo and Nathan 1984; Knipe nd.). Examples are noted in the Amesbury Down assemblage and in the (probable Romano-British) remains recently excavated near Wanborough, Wiltshire (Egging Dinwiddy in prep; 2017).

Pathology

Pathological lesions were observed in the remains of 12 individuals, predominantly reflecting dental disease and degenerative joint diseases, although indications of metabolic conditions, infectious disease and trauma are also present. Table 6 summarises pathology by context; the following presents a précis by pathological condition. True Prevalence Rates (TPRs) are given unless otherwise stated.

Dental disease

All or parts of 11 permanent dentitions were available for analysis (six female, two male, four unsexed). The dental disease rates are presented in Table 10 and discussed below.

Dental calculus (calcified plaque) is present on two to 27 teeth in all 11 dentitions. Most deposits are slight to moderate (Brothwell 1972, fig 58b), with only a few examples of heavier deposits in an older male. One deciduous tooth was also affected. The combined TPR is similar to the 65.9% rate seen in the large Romano-British assemblage from Amesbury Down, Wiltshire (Egging Dinwiddy in prep), although substantially greater than the period average proposed by Roberts and Cox (43.4%; 2003, table 3.11), although this is likely due to a dearth of comparable data.

Changes consistent with periodontal disease (gingivitis; Ogden 2005) were observed in one to 14 sockets in six individuals (four female; one male, one unsexed). Changes are generally slight (scores 2 to 2–3), although two dentitions feature single severe examples (score 4). The combined TPR of 21.9% falls below the 33.0% rate calculated for the assemblage from Amesbury Down (Egging Dinwiddy in prep), although this probably reflects poorer preservation of the Poundbury Farm socket margins.

Dental caries (destruction by acids produced by bacteria present in dental plaque) are present on between one and seven teeth in 10 dentitions (six female, two male, two unsexed). Eight deciduous teeth from two individuals are also affected. The combined rate is nearly double Roberts and Cox's period average (7.5%; 2003, table 3.10), although it is close to the those recorded for Poundbury Camp (15.8%; Molleson 1993) and Little Keep (12.5%; McKinley and Egging Dinwiddy 2009); the rate for the Alington Avenue assemblage, however, is substantially lower (2.2%; Waldron 2002).

Apical voids (Ogden 2008) are evident in between one and three sockets in the dentitions from three adult females and one male. Four lesions comprise smooth-walled spherical voids consistent with a peri-apical granuloma, a mass of soft tissue that usually forms in response to injury to the tooth pulp or its exposure to pathogens. Three larger voids indicate cystic (fluid filled) granulomata, and a further four lesions are more indicative of an abscess (Dias and Tayles 1997; Soames and Southam 2005; Katzenberg and Saunders 2008). The combined rate is close to the 3.9% mean calculated by Roberts and Cox for the Romano-British period (2003, 152), although lower than that for Little Keep (5.2%; McKinley and Egging Dinwiddy 2009). The was little recorded evidence for apical lesions at Alington Avenue (0.8%; Waldron 2002).

Ante mortem tooth loss is evident in six dentitions (two male, four female), where between one and six teeth had been lost. The previously recorded preponderance in females is somewhat rectified by the current findings. The combined rate is a little above the period average given by Roberts and Cox (14.1%; 2003, table 3.12) and those for Alington Avenue and Little Keep (13.4% and 10% respectively; Waldron 2002; McKinley and Egging Dinwiddy 2009). The rate for the material from Amesbury Down, however, is higher at 21.7% (Egging Dinwiddy in prep).

The rates of dental disease in the Poundbury Farm assemblage are broadly consistent with those from the region, especially those of a non-high status and rural nature. The considerably lower rates recorded for the generally higher status burial remains from Alington

Avenue suggests a very different diet and perhaps oral hygiene regime compared to the rest of the *Durnovaria* region population.

Stress indicators and metabolic conditions

Defects in the tooth crown are the manifestations of disrupted enamel formation (hypoplasia), caused by childhood physiological stresses eg, malnutrition and disease (Hillson 1979; Lewis and Roberts 1997, 581–2). Lesions are present on between two and 23 teeth in 10 adult dentitions (two male, five female, three unsexed). Most are linear and formed around the third to seventh years, coinciding with the traditional weaning age and preceding the maturation of an individual's immune system. All three of those whose problems commenced in infancy went on to suffer repeatedly; only one survived into adulthood. One child (9124) had endured at least five severe health crises between around six months and seven years, before finally succumbing at around the age of nine or 10. The onset of puberty and/or its associated social roles may have contributed to health issues indicated by defect formation at around 11 years of age (three cases). The combined TPR (Table 10) is close to those recorded for the remains from Amesbury Down (30.2%; Egging Dinwiddy in prep) and London Road, Gloucester (29.8%; Márqez-Grant and Loe 2008), although only 13.2% of those at Little Keep were affected (McKinley and Egging Dinwiddy 2009). These exceed the 9.1% average calculated by Roberts and Cox from a very limited sample (2003, table 3.16).

Pitting on the orbital roof – *cribra orbitalia* – has been linked to anaemia related to deficiencies in iron and Vitamin B12. Contributory factors include malnutrition, gastrointestinal conditions, chronic blood loss, parasitic infestation and/or high pathogen load (Roberts and Manchester 1995, 166–9; Lewis and Roberts 1997, 583; Walker *et al.* 2009). Moderate and at least partially healed lesions were observed in 12 of the 13 observable orbits (92.3%). Of the six affected individuals, four were female (three adults, one subadult), one was male (adult), and the last was a juvenile. The combined rate (65.2%) is notably high, far exceeding the Little Keep rate (9.1%; McKinley and Egging Dinwiddy 2009) and that listed by Roberts and Cox (9.6%; 2003, table 3.17) and those from London Road (22.8%; Marquez-Grant and Loe 2008, tables 3.47 and 3.55). Although still not as high, the 49.2% rate from Amesbury Down is more comparable (Egging Dinwiddy in prep).

The levels of stress indicators largely correspond to other rural assemblages, which, as Redfern *et al.* (2015) found, are generally greater than those recorded for urban populations.

Trauma

Four individuals (two of each sex) had suffered some form of traumatic injury (Crude Prevalence Rate (CPR) – number of affected individuals; 28.6%). One female (9203) had sustained a shear fracture at the distal end of her left fibula, a common injury resulting from a moderate lateral rotation or abduction of the ankle (Adams 1987, 264–70). A small lesion on the articular surface of the right distal humerus of the other female (9089) probably demonstrates *osteochondritis dissecans*, a condition where a piece of the articular surface becomes detached due to trauma or a compromised nutrient supply (Rogers and Waldron 1995, 28–30; Salter 1999, 355). The condition was observed in a female from the previously analysed assemblage from the site, Poundbury Camp and Alington Avenue (Egging Dinwiddy 2011; Molleson 1993; Waldron 2002).

Multiple injuries were manifest in a male skeleton (9196), including localised damage to a rib, vertebral endplate avulsion (11th thoracic and first lumbar vertebrae; Maat and Mastwijk 2000), a fractured fourth lumbar articular process, a heavily damaged incisor tooth and bony growths (exostoses) associated with damage to the right tibial collateral ligaments. Such injuries are consistent with a serious fall or falls. Hairline stress fractures in his right navicular are perhaps associated with the aforementioned event(s). Similar fractures in the naviculars of male 9155 (a likely relative) perhaps hint at a comparable lifestyle, although biomechanical stress associated with the tarso-metatarsal coalition described in the skeletal variation section above; a hip infection may also have contributed (see below).

Most injuries in the combined assemblage from Poundbury Farm (13 individuals; CPR 23.6%) involved the feet and axial skeleton, and likely resulted from accidents associated with everyday tasks.

Decapitation

The body of a 9–10 year old juvenile (9124; Fig.6b) had been decapitated, the skull plus the mandible and fragments of the atlas then placed between the individual's knees. The decapitation process evidently involved three successive incisions. The first is indicated by a *peri-mortem* cut across the underside of the mandible and the lower part of the left articular process of the axis, made by a thin, sharp blade drawn from left to right across the front of the neck, with the head stretched back. With the head tilted further backwards, a second, similarly accomplished incision produced steep-angled nicks in the inferior mandible (removing a piece of the left gonion) and sliced the upper edge of the left articular and transverse processes of the axis. Forcing the head back still further, probably using an implement to prise apart the atlas and axis (suggested by *peri-mortem* crushing of the atlas' anterior tubercle), allowed the blade

to access the ligaments anchoring the skull to the axis, severing of the tip of the dens in the process (Pl. 7). A transverse, near vertical cut on the ramus, just below the left mandibular condyle (Pl. 8) and damage to the right gonion were probably inflicted as part of the decapitation process.

Romano-British decapitation burials are not an unusual find (Harman *et al.* 1981; Philpott 1991, 53 and 226; Tucker 2015, fig. 6), indeed many are recorded in the Dorchester area alone (McKinley and Egging Dinwiddy 2009). The Poundbury Farm example is interesting as immature individuals are generally under-represented amongst the decapitated contingent (Harman *et al.*1981; Philpott 1991, 84; Tucker 2015, 53) and the incised, precise nature and location of the severance are also relatively uncommon – although in 1993 McKinley discussed a very similar case involving the remains of a 15–18 year old Romano-British female from Baldock, Hertfordshire (McKinley 1993a). The practical implications of this technique strongly implies that the individual was deceased prior to decapitation (*ibid*; McKinley and Egging Dinwiddy 2009; Tucker 2015, 65–7). Potential reasons for such treatment are discussed in more depth elsewhere, a recurring theme being the prevention of the return of the dead – particularly if the death was untimely or unexplained, or if the spirit of the individual was to be feared/revered for some reason (eg, Harman *et al.* 1981; Philpott 1991, 77–83; McKinley and Egging Dinwiddy 2009; Tucker 2015, 155–9).

Inflammation and infection

Inflammation via infection or other stimuli can prompt a bony reaction which may be proliferative (new bone deposits), destructive, or a combination of the two. Four individuals had some form of reactive new bone formation, which combined with the previous findings, provides a CPR of 29.1% (16 individuals).

Deposits of new bone in the maxillary sinuses of the subadult, possibly female, 9098 are indicative of chronic inflammation (sinusitis), a condition frequently caused by respiratory and dental infections or airborne pollutants (eg, smoke, dust). Extensive new bone on the bones of the nasal cavity of adult 9200 is likely the result of infection spread from a fistulated dental abscess, potentially complicated by narrow paranasal morphology. Lamellar new bone on the visceral surfaces of the ribs of decapitated juvenile 9124 indicate that they had recovered from a chronic inflammation of the thoracic lining, as occurs with enduring respiratory infections such as pneumonia and tuberculosis, or repeated inhalation of environmental irritants. It was not possible to specify a cause for the new bone formation on the proximal right tibia of female 9132.

Globular plaques of lamellar new bone within and around the left hip of adult male 9155 are probably the result of an infection, for example pyogenic or septic arthritis, which may have been associated with the formation of similarly healed periosteal new bone on the tibia and fibula of the same limb. Bloodborne *Staphylococcus aureus*, various *Streptococci* and *Neisseria gonorrhoeae* are the most common pathogens in this type of infection (Salter 1999, 218–21). Acute septic arthritis can lead to the destruction of the joint, pathological dislocation and/or ankylosis, and (as with any infection), left untreated, it may culminate in sepsis and the death of the individual (*ibid*, 218–21).

Joint diseases

Lesions associated with diseases of the joints are amongst the most commonly recorded in archaeological assemblages. Similar lesions (osteophytes and pitting) can form in response to different diseases, whilst lone lesions may be associated with wear-and-tear. Many conditions increase in severity and extent with age, although other factors may be involved.

The remains of seven complete or partial spines (five female, two male) and 547 extra-spinal joints (150 male, 392 female, 5 unsexed) were recorded. A summary of the spinal joint disease rates is presented in Table 11.

Schmorl's nodes, commonly caused by activity-induced rupture of intervertebral discs, were observed in three spines (two female and a male), affecting between two and seven vertebrae; nearly all involve the lower thoracic region. Combined with the previous results, the male rate is greater than that of the females (28.8% *vs* 16.4%), an often observed imbalance that indicates that young males were undertaking different tasks, or carrying out similar tasks in a different manner to the females, that led to more instances of excessive loading and twisting of the spine. The combined TPR is comparable to the rate calculated for the Little Keep assemblage (19.5%; McKinley and Egging Dinwiddy 2009), and slightly greater than the period average as suggested by Roberts and Cox (17.7%; 2003, table 3.21).

Degenerative disc disease (intervertebral disc degeneration) is typically due to age-related degeneration, although a genetic propensity may be involved (Rogers and Waldron 1995, 270; Buckwalter 1995; Sobajima *et al.* 2004; Chan *et al.* 2006). Lesions were observed in the lumbo-sacral region of female 9200. The combined TPR is somewhat less than the 22.0% and 25.5% seen in the Little Keep and Amesbury Down assemblages, respectively (McKinley and Egging Dinwiddy 2009; Egging Dinwiddy in prep).

Lesions consistent with osteoarthritis (Rogers and Waldron 1995, 43–4) were observed in two to three vertebrae in three female spines, affecting the articular process joints of thoracic

and lower lumbar vertebrae. The combined rate (15.3%) is comparable to the Little Keep TPR of 15.6% (McKinley and Egging Dinwiddy 2009), although lower than that for Amesbury Down (19.8%; Egging Dinwiddy in prep.). Only a further two hips from two females had osteoarthritic lesions, little changing the rates and patterns observed in the previously examined assemblage (Egging Dinwiddy 2011).

Between one and 20 vertebrae from four spines (two male, two female) had lone osteophytes, mostly affecting the articular and transverse process joints. Combined the rate is very similar to that seen in the material from Amesbury Down (33.2%; Egging Dinwiddy in prep) although much lower than the Little Keep TPR (48.9%; McKinley and Egging Dinwiddy 2009). An additional 50 affected extra-spinal joints (one–17 joints in seven individuals) brings the combined rate for both Poundbury Farm assemblages to 8.9%. Females were more likely to develop lesions in the axial skeleton and upper limbs, whilst males were more commonly affected in the lower limbs and shoulders.

Lone pitting was seen in between one and 12 vertebrae in four spines (one male, three female), predominantly affecting the articular process joints. The combined rate is somewhat lower than the 17.5% prevalence calculated for Little Keep (McKinley and Egging Dinwiddy 2009), but greater than the particularly low rate seen in the Amesbury Down vertebrae (6.3%; Egging Dinwiddy in prep.). Fourteen additional extra spinal joints were similarly affected, the combined rate from both Poundbury Farm assemblages becomes 4.7%. Overall, a large proportion of affected joints were from females, possibly skewed due to the number of older females within the combined assemblage. Lesions were seen across the skeleton in both sexes, although the shoulder region was affected to a greater extent in females.

Bridging of the right sacroiliac joint (superior aspect), manifest in the remains of older male 9196, may be related to a condition such as Diffuse Idiopathic Skeletal Hyperostosis (DISH) or ankylosing spondylitis (Aufderheide and Rodríguez-Martín 1998, 97; Parmar *et al.* 2004; Roberts and Manchester 2010, 159–61). However, the lack of further diagnostic indicators, the presence of spinal injuries and the partial sacralisation of the fifth lumbar vertebrae suggest that post-traumatic biomechanical stresses and joint degeneration may (also) have been major contributory factors.

The previously reported preponderance of degenerative changes in the lower limbs, compared to the upper limbs still stands. This is contra to the findings from Poundbury Camp and Little Keep, where the lower limb was far less frequently involved – a reflection perhaps

of differences in the physicality of the occupations and lifestyles between the rural and more urban/semi-urban population (Egging Dinwiddy 2011).

Plastic changes

Most of the plastic changes noted in Table 6 are consistent with biomechanical stresses related to activity, or occasionally associated with injuries or degeneration. The majority comprise slight bowing and/or twisting of long bone shafts, without any strong indications for bone weakening/softening metabolic deficiencies.

Adult 9196, the shortest of the males, had particularly robust upper limb bones and muscle attachments, especially the right side where the right humerus is 10 mm longer than the left. The right scapula has a large triangular prominence on the inferior lateral margin, at the attachments for the *teres minor* and major, and the *serratus* anterior muscles, which are particularly involved in the abduction, depression and rotation of the scapula. The femora are anteriorly bowed (the left has a greatly enlarged distal nutrient foramen), whilst the tibia shafts are somewhat serpentine. Together with the injuries described above, the evidence indicates that this strong, stocky man had habitually participated in activities that required the lifting and manoeuvring of very heavy loads.

Miscellaneous

Smooth, ivory new bone deposits on the intervertebral surfaces of the sixth and seventh cervical vertebral bodies of female 9093 probably represent calcification of the intervertebral disc (*calcific discitis*), a condition that is thought to have links to trauma, degeneration, various diseases and metabolic conditions (Knipe and Gaillard nd.).

Concluding remarks

The evidence gleaned from these additional burial remains confirms as well as enhances the findings of the previously published analysis (Egging Dinwiddy 2011). In general, the combined Poundbury Farm assemblage appears to derive from a mostly, but not entirely, 'Romanised' rural population, the skeletal remains largely reflecting a shared regional ancestry and environment. It is conceivable that some of the less common skeletal characteristics and differing mortuary rites demonstrated at Poundbury Farm might reflect various forms of migration into the area, attracted by the economic and social opportunities offered within the *Durnovaria* hinterland, as has been suggested for elsewhere in the region (Redfern *et al.* 2015). The preponderance of female *Durotrigian* style burials and the greater homogeneity in female

morphology may imply more substantial male migration into the *Durnovaria* locale, something suggested by the findings at Little Keep, where most of the cemetery population comprised adult males, and a high proportion of the burials had been 'deviant' (McKinley and Egging Dinwiddy 2009).

The decapitation burial, although a well-recorded phenomenon Harman *et al.* 1981; Philpott 1991, 53 and 226; Tucker 2015, fig. 6), is of particular note as there are relatively few recorded examples of the rite being carried out on such a young individual; perhaps the child's chronic lung condition set him apart for special funerary treatment.

The childhoods, diet and oral health of the Poundbury Farm population was largely comparable to their contemporaneous counterparts, regionally and beyond, although the particularly high levels of indicators of anaemia suggest issues with factors such as lifestyle diet, and/or pathogen and parasite load. Many of the population had led corporeally demanding lives, their predominantly farming lifestyle involving much traversing of the landscape and arduous labouring tasks, corroborating Redfern *et al.'s* (2015) discussions regarding how the region's rural contingent appear to have led more physically taxing lives compared to their urban neighbours. There are subtle variations in the expression and distribution of degenerative joint diseases between the sexes, suggesting some differences in everyday tasks, or the ways in which tasks were undertaken. Their rural way of life led to a number of inevitable, although typically minor, injuries, however, one man survived at least one major traumatic event, his many injuries possibly resulting from a fall from height, perhaps associated with his apparently strenuous occupation. Evidence for long-term infections remains fairly limited, although the lung condition of the decapitated individual and the bacterial infection of the hip of one male (which may well have contributed to his demise) are of some note.

Cremated Human Remains

by Jacqueline I McKinley

Introduction

Cremated bone from two features was subject to analysis. The nature of both deposits is slightly enigmatic. The charcoal-rich deposit from cut 9095, radiocarbon dated from a sample of cremated bone to the Middle Bronze Age, may represent a placed deposit of pyre debris or the truncated remains of an unurned burial with redeposited pyre debris. The similarly charcoal-rich deposit contained within the remains of an upright Early or Middle Bronze Age vessel

from pit 9104 (Fig. 4) is likely to represent a cenotaph (see below). The features lay 1.50 m apart and adjacent to graves within the small, Romano-British cemetery group (see above).

The remains of several Middle Bronze Age cremation burials, one urned and three unurned, were reported from earlier excavations in the vicinity (McKinley 2011). The two nearest graves lay 60–70 m to the south-west of the features reported here (4098 and 4092; Egging Dinwiddy and Bradley 2011, fig. 2.1).

Methods

The vessel (ON 7278) was block-lifted on site to enable micro-excavation under laboratory conditions by the writer in a series of quadranted spits to enable recovery of details pertaining to the burial formation process.

Osteological analysis followed the writer's standard procedure for the examination of cremated bone (McKinley 1994, 5–21; 2000). Age and sex were assessed following standard methodologies (Buikstra and Ubelaker 1994; Gejvall 1981; Scheuer and Black 2000).

Results

Neither feature had been cut by later interventions. The vessel from pit 9104 had, however, clearly been truncated (surviving depth 0.10 m) and the presence of archaeological components at surface level in pit 9095 indicates it had suffered via a similar mechanism, although this need not have been sufficient to result in the loss of much, if any, bone from either deposit. The bone (5.4 g) from pit 9105 comprises only small scraps of exclusively compact bone, whilst that from pit 9104 (49.4 g) is slightly worn in appearance and includes relatively little trabecular bone (subject to preferential destruction in aggressive burial environments; McKinley 1997a, 245; Nielsen-Marsh *et al.* 2000).

A minimum of one individual (MNI) – an adult of over 40 years of age, probably female − is represented, the archaeological components within both deposits potentially having derived from the same cremation. There is also the possibility, given the very small size and potential nature of these deposits, that the remains from one or both originated from one or more of the same cremations as represented within the similarly dated burials recovered in the earlier excavations (see above). Graves 4098 and 4092 both contained the remains of adult females (MNI three) of an age commensurate with the bone recovered here (McKinley 2011); there is no clear duplication of skeletal elements between the current deposits and those from these two graves; individuals from both graves had evidence for non-specific infection in the

form of periosteal new bone – also observed on a fragment of radius/ulna shaft from pit 9095 (small patch of lamellar bone); and one of the females from grave 4098 had evidence for osteoarthritis in the cervical vertebrae, similar lesions being evident in a lumbar vertebra from pit 9096. The only evidence contradicting this possibility is derived from the wood charcoal; that from pit 9095 comprising oak (see Challinor below) whilst that from graves 4092 and 4098 was predominantly ash (Challinor 2011, fig. 7.4), suggesting different pyres.

The bone is universally white in colour, indicative of full oxidation (Holden *et al.*1995a and b). The maximum fragment size recovered was small at 22 mm, and the majority of the bone from both deposits was found in the 5 mm sieve fraction (52–57% by weight). The weights of bone recovered are very small, that from pit 9095 representing only around 3% by weight of the average expected from an adult cremation (McKinley 1993b), in marked contrast to the more representative 60% from the burial remains recovered in the earlier investigations (McKinley 2011). Although a small quantity of bone has undoubtedly been lost as un-weighed 'dust' fraction from both deposits (around 17.6 g from pit 9095 and 1.2 g from 9104), neither would increase the overall weights by a significant amount. Between 31% and 41% by weight of the bone from each deposit was identifiable to skeletal element, most of which comprised the easily recognisable skull elements, although some fragments from all skeletal areas were present in pit 9095 (excluding hand/foot bones and only one unsupported tooth root).

The deliberate deposition of pyre debris, either in grave fills or as a component of other forms of placed deposit, is frequently observed in the Bronze Age (McKinley 1997b), and its presence is likely to indicate the close proximity of the pyre site to the place of deposition. Where incorporated in the grave fill, it was usually added subsequent to the burial, around or above it. The debris eventually infiltrated amongst the bone collected separately for burial (generally held in some form of organic container; see McKinley 2013a), thereby masking the separate stratigraphic events. The interpretive difficulty with the deposit from pit 9095 stems from the form of the deposit and the very small quantity of bone – grossly unrepresentative of the total amount that would have remained at the end of cremation. However, the distribution of the bone within the fill, concentrated (90% by weight) in the northern half of the cut, particularly the north-western quadrant (67%), does suggest that most of the bone was probably contained. Consequently, the possibility of this representing the remains of an unurned burial – potentially of a cenotaph or *memento mori* type (*ibid.*) – cannot be fully dismissed.

The micro-excavation of the fill of the vessel from pit 9104 indicates that the small quantity of bone was dispersed throughout the charcoal-rich fill, suggesting it formed a

component of the redeposited pyre debris. The very small amount of bone (less than 1% of the expected average from an adult cremation; McKinley 1993b), its condition and location suggest this placed deposit represents a cenotaph (McKinley 2013a). Remains from a cremation are, by form and nature, divisible and transportable, rendering the ritual use and deposition of material from any one pyre potentially innumerable. Toynbee (1996, 54) noted the Roman's use of cenotaphs 'if a person's body was not available for burial' or 'for some person whose remains were buried elsewhere'. The presence of redeposited pyre debris in archaeological features designated as cenotaphs suggests an individual may have been cremated in the vicinity and a *memento mori*/token deposit made in one location whilst the majority of the bone was buried elsewhere. Ten (urned) deposits of this form were found in the Middle Bronze Age cemeteries from Longham Lakes, Dorset (McKinley 2013b), together with numerous examples of vessels devoid of any bone but inclusive of fuel ash. The latter form of deposit was also noted at the similarly dated cremation cemeteries of Simons Ground and Knighton Heath in Dorset (Petersen 1981, 184; White 1982, 46–50), and there is a relatively large and growing body of evidence for such placed deposits of vessels, devoid of bone but often inclusive of fuel ash or burnt flint, at least some of which can be directly linked with the cremation rite and are likely to represent a variant of the cenotaph form (Challinor forthcoming; Watts and Quinnell 2001, 32; McKinley 2006; 2015).

Environmental evidence

Charred Plant Remains

by Sarah F. Wyles

Introduction

Twenty-one bulk samples were taken from a range of features mainly of Romano-British date to augment those from previous phases of work. These samples were predominantly associated with grave or cremation-related deposits. All were processed for the recovery and assessment of charred plant remains and wood charcoal, and two samples (oven 9032 and pit 9117, part of working hollow group 9205; Fig.3), were then selected for further analysis of the charred plant remains.

Methods

The bulk samples were processed using standard flotation methods, the flot being retained on a 0.5 mm mesh and the residues fractionated into 4 mm, 2 mm and 1 mm fractions. The coarse fractions (>4 mm) were sorted for artefacts and ecofacts, weighed and discarded.

At the analysis stage, all identifiable charred plant macrofossils were extracted from the flots, together with the 2 mm and 1 mm residues. Identification was undertaken using a Leica MS5 stereo incident light microscope at magnifications of up to x40, and followed the nomenclature of Stace (1997) for wild species and the traditional nomenclature provided by Zohary and Hopf (2000, tables 3 and 5) for cereals. Reference to modern reference collections was also made where appropriate; the results are tabulated in Table 12.

Results

In both samples, weed seeds outnumbered the cereal remains, which were mainly those of hulled wheat, emmer or spelt (*Triticum dicoccum/spelta*), with a few fragments of barley (*Hordeum vulgare*). In both cases, grain was also more numerous than the chaff elements. A few of the glume bases were identifiable as being those of spelt wheat (*Triticum spelta*) but there was no clear evidence of remains of emmer wheat (*Triticum dicoccum*).

The weed seed assemblages included seeds of docks (*Rumex* sp.), vetch/wild pea (*Vicia/Lathyrus* sp.), clover/medick (*Trifolium/*Medicago sp.) and ribwort plantain (*Plantago lanceolata*), all typical of arable land. Other weed seeds indicative of grassland, field margins and arable environments include those of red bartsia (*Odontites vernus*), oat/brome grass (*Avena/Bromus* sp.), rye-grass/fescue (*Lolium/Festuca* sp.), curled dock (*Rumex crispus*), goosefoot (*Chenopodium* sp.), oraches (*Atriplex* sp.) and meadow grass/cat's-tails (*Poa/Phleum* sp.). A number of seeds were those of species favouring wetter environments such as marshy grassland; these included club-rush (*Schoenoplectus lacustris*) and sedge (*Carex* sp.).

There was also a sloe (*Prunus spinosa*) stone within the assemblage (pit 9117) and a number of monocotyledon stem/rootlet fragments within both assemblages.

Discussion

These assemblages appear indicative of general settlement waste. Spelt wheat was the predominant cereal over much of England during the Romano-British period (Greig 1991). This was also observed in some assemblages from Romano-British deposits from earlier phases of work on the site at Poundbury (Monk 1987; Pelling 2011) and other sites in local area such

as County Hall Collinton Park (Ede 1993), Allington Avenue (Jones and Straker 2002), County Hospital (Stevens 2008) and Greyhound Yard (Jones and Straker 1993) in Dorchester, and sites along the Dorchester By-Pass (Letts 1997; Straker 1997).

The predominance of intermediate weed seeds, such as clover/medick, docks, vetch/wild pea and ribwort plantain, together with higher numbers of grain fragments than chaff elements, may indicate assemblages reflective of grain and waste material released by the pounding of semi-cleaned grain/spikelets after storage (Hillman 1981; 1984).

There is evidence for grain-dryers and ovens being used for multiple purposes during the Romano-British period, including the drying of whole ears or sheaves, the parching of fully ripe spikelets, the drying of fully processed grain prior to storage, the drying of fully processed grain to harden it prior to milling, and the roasting of germinated grain to stop germination as part of the malting process (van der Veen 1989). The composition of the assemblage from the oven in this part of the site provides no clear indication of the use of this structure. Elsewhere on the Poundbury site, the large grain dryer type structures seem to have been use for processing cereals and to be indicative of large scale processing in restricted parts of the site (Pelling 2011) while the grain-dryer on the Western Link of the Dorchester By-Pass may have been used to parch or roast malted grain as part of the brewing process (Letts 1997).

There are similarities between the range of weed seeds recorded in these assemblages and those recovered from Romano-British deposits from earlier phases of work on the site and other sites in the area. As seen elsewhere, there is an indication that the crops were being grown on a variety of soils in the locality, with the possible use of sandier soils shown by the presence of runch (*Raphanus raphanistrum*), of heavier clay soils by the presence of red bartsia and of lighter, drier, calcareous soils by species such as ribwort plantain. Wetter areas and hedgerows may also have been exploited, shown by the presence of sedge, club-rush and sloe.

The crops are likely to have been harvested by sickle as indicated by the presence of low growing species such as clover, medick and dock, together with the occurrence of twining species such as vetches/wild pea and bedstraw.

These assemblages appear to follow the general pattern of plant economy within and around Roman Dorchester discussed in the report on the charred assemblages from County Hospital (Stevens 2008). Richer deposits have generally been recovered from areas around the town rather than within the town itself, with possible large scale processing taking place in restricted places to supply wider areas and only small scale processing elsewhere. This part of

the Poundbury site is away from the main processing areas seen in an earlier phase of work (Pelling 2011).

Wood Charcoal

by Dana Challinor

Introduction

Five samples were studied for charcoal analysis: two from a cremation-related deposit in small pit 9096, which was radiocarbon dated to the Middle Bronze Age; and three from pits 9117, 9022 and 9024, which produced pottery of mid–late Romano-British date. The sample from 9117 was part of the working hollow 9205, thought to be associated with metalworking activities due to the presence of a quantity of slag. Other features at the site (such as the Romano-British oven) did not produce enough identifiable charcoal to merit analysis.

Methods

A random sample of 50 fragments/sample (from several sieve sizes >2 mm) was identified to characterise the assemblages. The charcoal was fractured and sorted into groups based on the anatomical features observed in transverse section at x7 to x45 magnifications.

Representative fragments from each group were then selected for further examination using a Meiji incident-light microscope at up to x400 magnification. Identifications were made with reference to Schweingruber (1990), Hather (2000) and modern reference material. Classification and nomenclature follow Stace (1997). Identifications are provided to the highest taxonomic level possible according to the native British flora, ie, where there is only a single native species, this is named, but where there are several native species, the genus or subfamily is given. Observations on maturity and character of the wood were recorded where visible.

Results

A total of 250 fragments were examined, producing nine positively identified taxa: *Quercus* sp. (oak), *Alnus glutinosa* (alder), *Corylus avellana* (hazel), *Populus/Salix* (poplar or willow), *Prunus* sp. (cherry/blackthorn), Maloideae (hawthorn, apple, pear, whitebeams etc.), *Acer campestre* (field maple), *Fraxinus excelsior* (ash) and *Sambucus nigra* (elder) (Table 13). The *Prunus* was not confidently identified to species, but the rays were relatively large, consistent with the native *P. spinosa* (blackthorn). The condition of the charcoal was generally good, with abundant material and a clear and clean anatomical structure. Some samples contained large

fragment sizes (up to 30 mm length), although the material from the cremation-related deposit was much more comminuted. Moderate to strong vitrification was observed in several fragments from the three pit samples. Roundwood fragments were common, especially in the pit samples, and although some were preserved with attached bark, none were complete. Several of the large *Sambucus* roundwood fragments in sample 9992 had similar measurements (8–10 mm radii) and ring counts (approximately 6), suggesting that they may represent fragments of the same branch. Small insect tunnels were noted in *Corylus* fragments in samples 9992 and 9994. Detached bark fragments were frequently observed in the samples, but in notable quantities in samples 9935 and 9994.

Discussion

There is a clear contrast between the Middle Bronze Age oak-dominated assemblages of the cremation-related feature and the diverse assemblages of the Romano-British samples. Oak was commonly used for cremation purposes; providing both the high calorific fuel required for efficient cremation, and the necessary pyre support (Gale 1997). The assemblage at Poundbury also conforms to the pattern of single-taxon dominance, recorded at other comparable sites, suggesting deliberate fuelwood selection (Thompson 1999, 357). Three Middle Bronze Age cremation graves from previous excavations at Poundbury Farm were also dominated by a single taxon, although in those assemblages it was ash wood rather than oak (Challinor 2011). The assemblage from 9095 is somewhat unusual in the quantity of bark preserved. The material was too comminuted to provide adequate determination of roundwood, but no tyloses (indicative of heartwood) were observed, and at least a few fragments were confirmed as sapwood. The bark could have entered the charcoal assemblage either as detached pieces deliberately used as kindling, or attached to the oak logs used on the pyre. If the first route were the case, it would be expected that the kindling would burn (more or less) to ash; which is refuted by the relatively large pieces and quantity recovered in the archaeological assemblage. It seems more likely, therefore, that the bark was attached to oak logs and subsequently became detached during the cremation. The preservation is still unusual as abundant bark fragments are rarely preserved in charcoal assemblages. It suggests that the deposit of material in pit 9095 derived specifically from a part of the pyre which had not been subjected to the most intense burning, probably the lower side support logs. Additionally, there was little cremated bone in the deposit, indicating that it was not the main burial deposit, and supporting the idea that the charcoal derived from redeposited debris.

Slag from iron-smithing activities were recovered from the fills of both Romano-British pits 9022, 9024 and working hollow 9118, and may offer a provenance for the charcoal from these features, although the quantities of iron material recovered were small. Moreover, context 9117 contained some residual Bronze Age pottery fragments, indicating some mixing of deposits. The charcoal from this context was interesting in the quantity of elder roundwood recorded. Elder was present in low quantities in most of the samples from the excavation (including the Bronze Age assemblages). It is a shrub/small tree commonly found in hedgerows and woodland margins, with a variety of potential uses (for wood-working, dye production and as a foodstuff), but is not generally considered a good fuelwood (Scout Association 1999). Moreover, it is not widely found in archaeological charcoal assemblages, except as a small or marginal component. Smithing would most likely have used charcoal as a fuel, and the production of charcoal was traditionally made from roundwood, sourced from coppiced stems or underwood (Bond 2007, 280–90). This model would be supported by the range of taxa found in pits 9117, 9022 and 9024 (hazel, field maple, ash, blackthorn etc) as well as the dominant roundwood character of the assemblages. However, the survival of a quantity of bark in 9024 is not consistent with the high temperatures required for metalworking, unless the deposit represents debris from the margins of the fire, or other factors were at work causing incomplete combustion. In general, archaeological evidence from Romano-British metalworking sites suggests that mature oak was usually favoured for the specific activities of smithing and smelting (eg, Challinor 2014) and more mixed assemblages often date to later periods. A pit from the earlier excavations at Poundbury Farm, possibly associated with charcoal fuel used in copper working activities, was dominated by oak (Challinor 2011).

In conclusion, the Middle Bronze Age charcoal assemblage indicates a deliberate and specific selection of oak for cremation, consistent with patterns seen elsewhere, albeit with an unusual quantity of bark preserved. In contrast, the Romano-British assemblages reflected a wider diversity of species collection. Whether the latter assemblages derived from charcoal fuel associated with metalworking or mixed domestic type activities is unclear, but the evidence shows that a range of taxa were utilised for fuel in these features. The absence of oak in these assemblages is probably significant; however, this may relate to function rather than reflecting the availability of resources, and oak was certainly utilised for fuel in Romano-British activities at the nearby site of Poundbury Farm.

Radiocarbon dating

by Alistair J. Barclay and Sarah F. Wyles

Three radiocarbon dates from the Scottish Universities Environmental Research Centre (SUERC) were obtained on human bone. The dates have been calculated using the calibration curve of Reimer *et al.* (2013) and the computer program OxCal (v4.2.4) (Bronk Ramsey and Lee 2013). They are cited at 95% confidence and quoted in the form recommended by Mook (1986), with the end points rounded outwards to 10 years. The ranges in plain type in Table 14 have been calculated according to the maximum intercept method (Stuiver and Reimer 1986).

SUERC-59048, obtained on cremated bone from pit 9095, indicates that the cremation-related deposit was made during the Middle Bronze Age (1420–1230 cal BC at 95% confidence). Two further dates (SUERC-59047 and 59052) were obtained on bone from inhumation burials 9039 and 9114 and produced almost identical results indicating that both burials could have been made during the early to middle Roman period. The C:N ratios for the two measurements are consistent with a terrestrial diet and do not suggest a dietary offset, which can make results significantly older than their actual age.

Discussion

The above provides some of the missing pieces in the understanding of this part of the Poundbury Farm development site, clarifying and adding nuances to the previously published findings. In general, these support previous patterns, interpretations and discussion, while at the same time they have revealed further insight into the lives of the past populations of the Dorchester environs.

The study of the cremation-related deposits has enhanced the growing corpus of evidence for Middle Bronze Age mortuary practices in the county. The selection of oak for the pyre associated with the Bronze Age cremation-related deposits (potentially *memento mori*/cenotaph type) is more in keeping with the general pattern for the period (albeit with greater quantities of bark), something that contrasts with the previously recorded deposits, for which ash-wood was the material of choice. This difference has led to the conclusion that whilst there are various demographic and pathological similarities amongst the correspondingly dated cremated bone assemblage from this part of the site, the indication of two separate pyres suggests that the remains are not likely to be all from the same individual.

The mooted theory of an Early–Middle Iron Age hiatus of activity in the vicinity, ie, away from the nearby hillforts of Poundbury Camp and Maiden Castle during this period

(Sharples 1991, 260; Smith 1993, 299) continues to be upheld by the current and combined findings.

The newly discovered Romano-British features and contexts have elucidated certain aspects of the sequences of activity and have proven that the enclosure complex continues to the north. The results substantiate the population's reliance on a mixed agrarian economy, particularly regarding sheep – animals well-suited to the environment. The production of secondary goods such as wool and milk (probably sheep as well as cattle) was clearly important, and traction animals were used to assist with the arable aspects of farming. No doubt there was a high demand for their products in nearby *Durnovaria*. Although we know that the settlements inhabitants had been growing, harvesting and processing crops in the immediate vicinity, it was not possible to determine a specific function for the oven-type structure, and there is some suggestion that it probably served several purposes. Wild floral and faunal resources were also being exploited for food, fuel and crafts; the presence of the remains of useful and/or companionable animals (eg, cat and dog) adds more humanity to the narrative.

As evidenced previously, the various small-scale industrial activities, including possible iron-smithing, began to leave more obvious traces towards the end of the Romano-British period, most likely associated with the small settlement recorded just to the south-west.

The more recently discovered Romano-British mortuary evidence is of particular interest. A study of the burial contexts has revealed variation in this rural community's treatment of the dead.

The sacrifice of animals – chosen according to their symbolic significance, as well as their colour and character – was a common practice in the Roman world (as elsewhere), as religious festivals required them to bring harmony between the earthly and the divine. Rituals were based on a traditional, ideological framework but, in practice, differed between families, social groups and location (Worley 2008, 93–4; Leptez 2017, 226; Ekroth 2014, 325).

The latin word for sheep, '*agnus'*, is derived from the Greek '*hagne'*, meaning chaste or pure. The lamb has, since ancient times, been considered emblematic of purity, sacrifice, innocence, gentleness, humility and patience, renewal and redemption, (Tresidder 1997, 118; Werness 2004, 250–1; Lefkowitz 2014, 11–12). In the Roman world lambs were one of the preferred species for many ceremonies and to numerous deities, due to their perceived 'willingness' (Toynbee 1973, 152, 164; Worley 2008, 98). The animal is repeatedly portrayed in Early Christian liturgy as a symbol of chastity and innocence, eg, 3rd-century AD Roman virgin St Agnes, whose later totem is the lamb. Jesus Christ, the 'true lamb', the Lamb of God,

the Paschal Lamb, was proclaimed by John the Baptist as the bringer of salvation through the atonement of sin (John 1:29). Certain groups, familial, cultural, social or otherwise connected, also applied totemic significance to particular animals, though these were more often wild animals (Worley 2008, 110).

Examples of complete sheep carcasses accompanying inhumation burials – ie, dedication of the entire animal (a *holocaust*; Aldhouse-Green 2001, 48), without any being consumed as food – are sparse and are not recorded in significant numbers within Romano-British cemeteries (eg, Chichester St Pancras and Winchester; Booth *et al.* 2010, 86, 366; Morris 2011, 147–8). The inclusion of sheep burials with those of several individuals buried together at Poundbury Farm, therefore, is intriguing and demonstrates that this group attached a particular significance to these animals. Sheep farming was economically significant to the community, and that they will have lived and worked closely with their animals throughout their lives, but this would not have been an unusual circumstance. They may have had a strong affinity with a religion or belief system – animal sacrifice has a long history across many regions and cultures. It may even be that they had been exposed to Early Christian influences, and the evidence perhaps showing the melding of new ideas with more traditional ones (Aldhouse-Green 2018, 52). Although we cannot be certain why these particular individuals were all afforded this unusual rite, there was almost certainly some common purpose.

Romano-British decapitation burials are a well-recorded phenomenon, and there are many recorded in the assemblages from the cemeteries of *Durnovaria* – the most abundant numbers seen at Little Keep, just to the south of the much larger Poundbury Camp cemetery limits (McKinley and Egging Dinwiddy 2009). As discussed above, the reasons for such treatment are complex, although it is generally supposed that they address various beliefs, especially if they had somehow been perceived as 'different' (positively as well as negatively). This recent discovery at Poundbury Farm is of particular note due to the youth of the deceased, and that they had been one of those buried with a lamb. It is tempting to make a connection with the story of St Agnes, an adolescent Early Christian virgin beheaded in Rome in AD 304 and canonised soon after. Could the story have reached the outskirts of *Durnovaria* so quickly, if at all?

Other variations in burial rites, morphology and some of the pathological lesions may be reflective of, for example, tradition, status, occupation and lifestyle. In this respect, the Romano-British inhabitants of Poundbury Farm were fairly typical of the rural farming communities of the time and their remains may be broadly compared with those once buried in

the cemetery at Poundbury Camp (Molleson 1993; Egging Dinwiddy and Bradley 2011, 166). Skeletal indicators demonstrate a physically demanding lifestyle involving lots of walking, heavy lifting and other laborious exertions. Differences in the manifestation of these markers suggest that men and women might have been participating in different tasks, or carrying out similar tasks in different ways. Injuries were typically minor, resulting from accidents, slips, trips and falls, with only rare examples of more serious injury.

The evidence also hints at a greater proportion of males being attracted from outside the local area by the opportunities offered by *Durnovaria*, something more overtly evident at Little Keep (McKinley and Egging Dinwiddy 2009). The Poundbury Farm female remains, by contrast, are generally less morphologically diverse and women were more likely to have been given traditional, local-style funerary rites.

Childhood saw the usual stresses of weaning and juvenile diseases, and possibly the increased responsibilities as they reached the age of majority. High levels of anaemia within the population are of interest, and may suggest that this group were particularly affected by the causative factors, such as diet and pathogen/parasite load. The evidence for chronic infections/inflammation remains at a low level.

The site and surrounding areas saw little settlement activity in subsequent periods, and continued to be used as farmland until the early 21st century.

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Tables

Ware	No.	Wt.
Early/Middle Bronze Age		
Grog-tempered ware	*9*	*1140*
Romano-British		
SE Dorset Black Burnished ware	1436	15,534
SW Black Burnished ware	419	5233
South-east Dorset orange wiped ware	133	1829
Oxidised ware	60	493
NE Gaul mortaria	45	266
Samian	37	362
Oxon red-slipped ware	21	113
New Forest colour-coated wares	15	223
SW micaceous fine greyware	9	47
Rhineland mortarium	4	450
Other imports	3	5
Dressel 20 amphora	2	308
Greyware	1	5
	2185	*24,868*
Post-medieval		
Redware	*1*	*15*
Total:	**2195**	**26,023**

Table 1 Total number and weight (g) of sherds by period and ware type

Fabric	Poundbury Farm			Greyhound Yard	County Hall	Alington Avenue	Former hospital	By-pass sites	Western Link Road
	2013	2007	combined						
SED BB	66%	75%	72%	60%	71%	85%	61%	63%	67%
SW BB	19%	10%	13%	15%	18%	7%	18%	10%	20%
SEDOWW	6%	8%	7%	not ident	not ident	not ident	3%	4%	9%

Table 2 Proportions of the various Black Burnished ware fabrics (as % of total sherds from site) and comparisons with other Dorchester sites (no data for Wessex Court)

	Poundbury Farm			Greyhound Yard	Wessex Court	County Hall	Former hospital	Alington Avenue	By-Pass Sites	Western Link Road
	2013	2007	combined							
Imported finewares	1.8%	1.8%	1.8%	9.6%	5.6%	3%	5%	2.5%	1%	1%
Amphora	>0.1%	0.5%	0.4%	3%	3%	2%	4%	1%	0.3%	0.2%
Mortaria	2%	0.2%	0.9%	0.4%*	Not quant	0.1%*	0.6%	0.3%*	0.2%*	>0.1%*
British finewares	2%	2%	2%	3%		3%	3%	2%	0.6%	3%
Oxidised wares	2%	1%	1.5%	4%	91%	2%	4%	1%	0.4%	
Reduced coarsewares	91%	94.5%	93%	80%		89%	83%	93%	97.5	95.7%

Table 3 Proportions of the major fabric families as a percentage of the number of sherds from the various Dorchester sites

* excluding New Forest and Oxfordshire fabrics

Species	**NISP**
cattle	55
sheep/goat	133
pig	15
horse	11
dog	3
red deer	2
cat	1
domestic fowl	6
passerine sp.	2
rodent	7
frog	2
Total identified	**237**
Total unidentifiable	**286**
Overall total	**523**

Table 4 Number of identified specimens present (or NISP). Sheep/goat count adjusted to take account of ABGs (see Table 5)

Cut	Fill	ABG	NISP	Age estimate ABG	Location and associations
9094	9109	7104	40	2–6 months	outside coffin, along right side. Female *c* 45–55 yr
9125	9153	7167	32	0–2 months	outside coffin, along left side. Juvenile *c* 9–10 yr
9154	9180	7197	57	6–12 months	outside coffin, along right side. Male (*c* 40–45 yr)
9195	9196	7261	20	2–6 months	outside coffin, below left foot. Male (*c* 40–50 yr)

Table 5 Summary of sheep/goat ABGs from graves

context	cut	deposit type	date	approx quantity	estimated age/sex	pathology
9040*	9039	inh. burial [D]	E-MRB	15%	adult >40 yr ??male	amtl; calculus; dental caries; enamel hypoplasia; op – C2 as
9051	9052	inh. burial	RB	5% l	juvenile/subadult 10–15 yr	
9089	9090	inh. burial [D]	RB	68%	adult 35–45 yr ??female	amtl; calculus; dental caries; enamel hypoplasia; pd; periapical void; HFI; *osteochondritis dissecans* – right distal humerus; Sch – 1T; oa – 2T ap; op – right proximal radius; pitting – L ap, left c-v, left sterno-clavicular; enth – patellae; cortical defect – ?right 1st proximal finger phalanx, right 1st proximal toe phalanx; plastic changes – radii & ulnae; MV – coalition (hallux sesamoid)
		a) R		a) *c*. 10% l	a) juvenile/subadult 10–15 yr (add. individual)	a) plastic change – left tibia
9093	9094	coffined	RB	65%	adult 40–50 yr female	amtl; calculus; dental caries; pd; periapical void; calcific discitis – C6–7; oa – 1T ap, 1st c-v; op – C6, T1 ap, right patella, right acetabulum; pitting – acetabulae; enth – middle finger phalanges; cortical defect – right distal radius
9098	9097	coffined	RB	96%	subadult 16–17 yr ??female	calculus; dental caries; enamel hypoplasia; pd; *cribra orbitalia*; endocranial capillary impressions; sinusitis; pitting – left 1st proximal toe phalanx; enth – orbital margin; MV – dental crowding; impaction; shovelled incisors, sutural ossicles, palatine torus
9115*	9114	inh. burial [D]	E-MRB	40%	juvenile 10–11 yr	calculus; dental caries; enamel hypoplasia; lamellar new bone/ossified ligament – sacrum, sacral body; MV – plural mental foramen
9124	9125	coffined (decap)	RB	60%	juvenile 9–10 yr	calculus; dental caries; enamel hypoplasia; pd; *cribra orbitalia*; sharp blade trauma – mandible, C1–2 (decapitation); pnb – left rib; plastic change – radii, femora; MV – sutural ossicles
9127	9126	coffined	RB	18%	adult >30 yr	calculus; enamel hypoplasia; MV – shovelled incisor
9132	9133	coffined	RB	55%	adult 45–55 yr female	calculus; dental caries; enamel hypoplasia; *cribra orbitalia*; HFI; pnb – right proximal tibia; oa – L4–S1 ap, left hip; op – L2–3 ap, 2 c-vs, sacro-iliacs, right hip, acetabulae, distal femora; pitting – temporo-mandibulars; enth – ischia, right calcaneum; cortical defect – right navicular; ?cyst – right temporal; MV – accessory sacral facets

context	cut	deposit type	date	approx quantity	estimated age/sex	pathology
9155	9154	coffined	RB	55% a.u.l.	adult 40–45 yr male	fracture – right talus; septic arthritis – left acetabulum, ischium, proximal femur, left fibula; op – left distal ulna, knees, 2 right, 2 left tarsals; enth – innominates, right patella, right calcaneum; exostoses – left femur shaft; plastic change – radii & ulnae, fibulae, tali; MV – accessory tibial foramen, coalition (right middle cuneiform & 3rd MtT)
9196	9195	coffined	RB	90%	adult 40–50 yr male	amtl; calculus; dental caries; enamel hypoplasia; pd; periapical void; *cribra orbitalia*; fracture – maxillary incisor, L4 ap, right talus; avulsion – T11, L1; sinusitis; pnb – left mandible, left 1st rib; ankylosis – right sacro-iliac; Sch – T9–L3; op – temporo-mandibular, T6, T8–12, L3–S1 ap, L2-3 bsm, T2-9 tp, left 6 right & 2 left c-vs, right sacro-iliac, hips, right glenoid, left distal radius; pitting – left temporo-mandibular, T1, 4, 6–10, 12 ap, T8–10 tp, 3 c-vs, acromio-claviculars, left proximal femur, 3 left tarsals; rotator cuff degeneration; enth – fingers, calcanea; cortical defect – right clavicle, left calcaneum, left talus; exostoses – right tibia; plastic change – right scapula, upper limb asymmetry, enlarged femoral foramen, femora, tibiae; cyst – hamate; MV – dental crowding, shovelled incisors, sutural ossicles, mendosal/biasterionic sutures, M3s absent, palatine tori (M2s), cranial shift (L/S; vestigial 12th ribs), accessory tibial foramen, *os navicularum*, variant cuneiform
9200	9199	coffined	RB	80%	adult 35–45 yr ??female	amtl; calculus; dental caries; enamel hypoplasia; pd; periapical void; *cribra orbitalia*; sinusitis; Sch – T11–12; ddd – L5–S1; op – T8-9, T11, L1 ap, T11–L1 bsm, 4 right & 1
		a) R		a) 2 frag. u.l.	a) adult <18 yr	left c-v, right elbow, right wrist, right 1st MtC-P; pitting – T11–12 ap; enth – innominates, right calcaneum; plastic changes – femora & tibiae; MV – dental crowding, shovelled incisors, sutural ossicles, multiple supra-orbital foramen, asymmetric nasal aperture, very narrow nasal region, pre-condylar tubercle, vertebral asymmetry
9203	9202	coffined	RB	65%	adult >45 yr female	calculus; dental caries; enamel hypoplasia; fracture – left fibula; *cribra orbitalia*; oa – right hip; op – right acetabulum (labrum), right proximal finger phalanx, left proximal femur; pitting – temporo-mandibulars, right distal radius; enth – calcanea; cortical defect – left 1st MtT; plastic change – left hip, right 4th MtT

KEY: * – C14 dated; D – Durotrigian style; inh. – inhumation; R – redeposited; s.a.u.l. – skull, axial, upper limb, lower limb; amtl – ante mortem tooth loss; pd – periodontal disease; HFI – hyperostosis frontalis interna; pnb – periosteal new bone; Sch – Schmorl's nodes; ddd – degenerative disc disease; oa – osteoarthritis; op – osteophytes; C, T, L, S – cervical, thoracic, lumbar, sacral vertebrae; as – articular surface; ap – articular process joint; bsm – body surface margins; tp – transverse process joint; c-v – costo-vertebral joint; enth – enthesophytes; MtC- /MtT-P – metacarpo-/metatarso-phalangeal; mv - morphological variation; M – molar tooth

Table 6 Summary of results – unburnt human bone (2013 excavation only)

Age estimate	*Durotrigian*	Romano-British	Total
IMMATURE			
juvenile 9–11 yr	1	1*	2
juvenile/subadult 10–15 yr	1	1	2
subadult 13–17 yr		1 (??F)	1 (??F)
subtotal	*2*	*3*	*5*
ADULT			
35–45 yr	1 (??F)	1 (??F)	2 (2??F)
40–50 yr		3 (1F, 2M)	3 (1F, 2M)
45–55 y		1(F)	1(F)
>30 yr		1	1
>40 yr		1 (??M)*	1 (??M)*
>45 yr		1 (F)	1 (F)
subtotal	*1*	*8*	*9*
total	**3 (1F)**	**11 (5F, 3M)**	**14 (6F, 3M)**

Table 7 Demographic summary table (2013 only)

* ^{14}C, E and M RB

Age estimate	*Durotrigian*	Romano-British	total
IMMATURE			
foetus <40 wk		1	1
neonate 0–6 mth		5	5
infant 6 mth–4 yr	1	2	3
juvenile 8–11 yr	1	2	3
juvenile/subadult 10–15 yr	1	1	2
subadult 13–17 yr	2 (1??F, 1M)	2 (1??F)	4 (2??F, 1M)
subtotal	*5*	*13*	*18*
ADULT			
20–30 yr	1 (M)	4 (1F, 1?F, 2M)	5 (1F, 1?F, 3M)
30–40 yr		3 (2F, 1M)	3 (2F, 1M)
35–45 yr	3 (2F, 1??F)	4 (2?F, 1??F, 1?M)	7 (2F, 2?F, 2??F, 1?M)
40–50 yr	1 (F)	8 (3F, 2M, 1?M, 1??M)	9 (4F, 2M, 1?M, 1??M)
45–55 yr		1 (F)	1 (F)
>18 yr	1 (?M)	3 (1M, 1?M)	4 (1M, 2?M)
>30 yr		1	1
>40 yr		1 (??M)*	1 (??M)*
>45 yr	1 (F)	3 (1F, 1M, 1??M)	4 (2F, 1M, 1??M)
>55 yr	2 (2F)		2 (2F)
subtotal	*9*	*28*	*37*
total	**14 (8F, 3M)**	**41 (12F, 13M)**	**55 (21F, 16M)**

Table 8 Demographic summary table (2007 & 2013 combined)

* ^{14}C, E and M RB

		Poundbury farm (2013)		Poundbury Farm (combined)	Poundbury camp *	Alington Avenue **	Little Keep ***
STATURE (M)							
F	3	1.64 *1.62–1.68 (SD 0.03)*	14	1.62 (5’3½”) *1.51–1.68 (SD 0.04)*	1.61 *1.51–1.71*	1.57 *1.45–1.70*	1.56 (5’1½”) *1.48–1.62*
M	2	1.72 *1.63–1.82 (SD 0.12)*	8	1.66 (5’5¼”) *1.60–1.81 (SD 0.07)*	1.66 *1.48–1.85*	1.69 *1.50–1.80*	1.70 (*1.62–1.79*
CRANIAL INDEX							
F	2	72.85 *71.81–73.89 (SD 1.47)* dolichocrania	10	73.81 *68.72–81.71 (SD 3.69)* dolichocranic	77.1 *68.4–85.3* mesocranic	dolichocranic	73.6 *68.9–81.9* dolichocranic
M	1	82.98 brachycrania	6	78.69 *76.06–82.98 (SD 3.19)* mesocranic	76.4 *67.5–84.3* mesocranic	mesocranic	76.7 *70.6–85.1* mesocranic
PLATYMERIC INDEX							
F	6	81.75 *70.42–97.67 (SD 10.16)* platymeric	15	82.57 *63.71–105.3 (SD 11.45)* platymeric	78.3 *62.5–104.0* platymeric	platymeric	85.71 *72.23–100* eurymeric
M	2	80.30 *74.07–86.12 (SD 5.19)* platymeric	7	82.80 *74.07–102.54 (SD 6.90)* platymeric	80.7 *62.2–100* platymeric	platymeric	87.29 *72.97–100* eurymeric
PLATYCNEMIC INDEX							
F	5	73.71 *66.67–78.13 (SD 3.92)* eurycnemic	15	71.13 *62.16–85.08 (SD 6.16)* eurycnemic	71.5 *56.3–87.0* eurycnemic	mesocnemic	70.17 *59.94–76.37* eurymeric
M	2	70.18 *64.32–77.27 (SD 6.19)* eurycnemic	10	74.79 *64.32–90.45 (SD 8.03)* eurycnemic	69.5 *55.0–83.3* mesocnemic	mesocnemic	71.24 *60.40–82.70* eurycnemic
ROBUSTICITY INDEX							
F	4	119.46 *110.59–125.43 (SD 4.47)*	10	121.60 *110.59–134.89 (SD 7.00)*	–	–	123.8
M	2	136.19 *125.60–142.82 (SD 9.26)*	6	130.63 *121.94–142.8 (SD 7.77)*	–	–	129.4

Table 9 Summary of skeletal indices from the site and others in the Dorchester area

*(Molleson 1993, 167–8); **(Waldron 2002, 151); ***(Egging Dinwiddy 2009, 70, table 3)

	No. teeth	No. tooth positions	Calculus	amtl	caries	apical voids*	pd	DEH
female	T 103 47 mx 56 md	T 98 37 mx 61 md	T 86 36 mx 50 md (83.5%)	T 9 3 mx 6 md (9.2%)	T 17 5 mx 12 md (16.5%)	T 7 3 mx 4 md (7.1%)	T 20 13 mx 7 md (20.4%)	T 62 28 mx 34 md (60.2%)
male	T 31 15 mx 16 md	T 38 16 mx 22 md	T 24 10 mx 14 md (77.4%)	T 7 2 mx 5 md (18.4%)	T 8 3 mx 5 md (25.8%)	T 2 1 mx 1 md (5.3%)	T 12 8 mx 4 md (31.6%)	T 10 5 mx 5 md (32.3%)
total (2013) incl. unsexed	***T 171*** ***82 mx*** ***89 md***	***T 155*** ***58 mx*** ***97 md***	***T 115*** ***50 mx*** ***65 md*** ***(67.3%)***	***T 16*** ***5 mx*** ***11 md*** ***(10.3%)***	***T 29*** ***12 mx*** ***17 md*** ***(17.0%)***	***T 9*** ***4 mx*** ***5 md*** ***(5.8%)***	***T 65*** ***43 mx*** ***22 md*** ***(41.9%)***	***T 93*** ***43 mx*** ***50 md*** ***(54.4%)***
2007 & 2013 combined	**T 681**	**T 662**	**T 435 63.9%**	**T 108 16.3%**	**T 90 13.2%**	**T 24 3.6%**	**T 145 21.9%**	**T 180 26.4%**

KEY: * includes lesions indicative of abscesses and granuloma; amtl – *ante mortem* tooth loss; pd - periodontal disease; DEH – dental enamel hypoplasia; T – total teeth/sockets; mx – maxillary; md - mandibular

Table 10 Summary of dental pathology (permanent dentition only)

	No. vertebrae	osteoarthritis	Schmorl's nodes	degenerative disc disease	lone osteophytes	lone pitting
male	23	-	7 (30.4%)	-	17 (73.4%)	9 (39.1%)
female	64	4 (6.3%)	5 (7.8%)	2 (3.1%)	7 (10.9%)	5 (7.8%)
total	***87***	***4 (4.6%)***	***12 (13.8%)***	***2 (2.3%)***	***24 (27.6%)***	***14 (16.1%)***
2007 & 2013 combined	**458**	**67 (14.6%)**	**90 (19.7%)**	**58 (12.7%)**	**148 (32.3%)**	**52 (11.4%)**

Table 11 Summary of spinal lesions in adults

Phase		RB	
Group			working hollow 9205
Feature type		Oven	Pit
Cut		9032	9117
Context		9035	9118
Sample		9910	9992
Vol (L)		20	20
Flot size		100	200
%Roots		60	3
Cereals	**Common Name**		
Hordeum vulgare L. *sl* (grain)	barley	3	-
Triticum spelta L. (glume bases)	spelt wheat	1	1
Triticum dicoccum/spelta (grain)	emmer/spelt wheat	6	3
Triticum dicoccum/spelta (spikelet fork)	emmer/spelt wheat	1	2
Triticum dicoccum/spelta (glume bases)	emmer/spelt wheat	10	17
Cereal indet. (grains)	cereal	5	12
Cereal frag. (est. whole grains)	cereal	18	20
Cereal frags (rachis frags)	cereal	-	1
Other Species			
Ranunculus sp.	buttercup	2	-
Chenopodium sp.	goosefoot	3	-
Atriplex sp. L.	oraches	2	-
Stellaria sp. L.	stitchwort	-	2
Polygonum aviculare L.	knotgrass	-	1
Rumex sp. L.	docks	32	27
Rumex crispus L. Type	curled dock	5	3
Brassica sp. L.	brassica	1	1
Raphanus raphanistrum L.	runch	-	1
Prunus spinosa	sloe stone	-	1
Vicia L./*Lathyrus* sp. L.	vetch/wild pea	15	4
Medicago/Trifolium sp. L.	medick/clover	12	7
Plantago lanceolata L.	ribwort plantain	-	7
Odontites vernus	red bartsia	1	-
Galium sp. L.	bedstraw	-	1
Schoenoplectus lacustris Palla	club-rush	1	-
Carex sp. L. trigonous	sedge trigonous seed	5	-
Carex sp. L. flat	sedge flat seed	4	-
Lolium/Festuca sp.	rye-grass/fescue	4	3
Poa/Phleum sp. L.	meadow grass/cat's-tails	3	6
Avena L./*Bromus* L. sp.	oat/brome grass	2	4
Monocot. Stem/rootlet frag		13	30
Parenchyma/Tuber		1	-

Table 12 Charred plant remains from Romano-British features

	Period	Middle Bronze Age		Mid-Late Romano-British		
	Feature type	Cremation-related deposit			Pit	
	Feature number	9095		9117	9022	9024
	Context number	9096 *NW Quad, Spit 3*	9096 *Lower fill*	9118	9023	9025
	Sample number	9934	9935	9992	9993	9994
Quercus sp.	oak	47 (s)	28 (s)			
Alnus glutinosa Gaertn.	alder			2r	3r	1
Corylus avellana L.	hazel			6r	19r	14r
Alnus/Corylus	alder/hazel				15 (r)	6r
Populus/Salix	poplar/willow				2	
Prunus sp.	cherry type				5r	
Maloideae	hawthorn group					8r
Acer campestre L.	field maple			2		1r
Fraxinus excelsior L.	ash			2		
Sambucus nigra L.	elder	(1)	1	37r		1
Indeterminate	bark	2	21	1	5	18
Indeterminate	diffuse porous				1	1
Total		50	50	50	50	50

r=roundwood; s=sapwood; brackets denotes rare fragments only or cf. identification

Table 13 Results of the charcoal analysis (showing fragment count)

Lab ref	**Feature**	**Material and identification**	**Uncal BP**	**$\delta^{13}C$ (‰)**	**$\delta^{15}N$ (‰)**	**C:N**	**95% confidence**
SUERC-59047	9039 (9040)	Human bone, left femur	1856±29	-20.1‰	9.4‰	3.4	70–240 cal AD
SUERC-59048	9095 (9096)	Cremated human bone, femur/long bone shaft	3070±29	-23.5‰			1420–1230 cal BC
SUERC-59052	9114 (9115)	Human bone, right fibula shaft	1851±29	-19.7‰	8.9‰	3.3	70–240 cal AD

Table 14 Radiocarbon results

Appendix 1 Grave catalogue

Key: m aOD – metres above Ordnance Datum; rpd – redeposited pyre debris; s, a, u, l – skull, axial skeleton, upper limb, lower limb (where not all skeletal regions survive); ?/?? – probable/possible (qualifying degree of confidence in stated sex estimation); ON – Object Number; ABG – Associated (animal) Bone Group; L – long; W – wide; T – thick

NB. Grave base levels = deepest extent

All age ranges and skeletal recovery percentages are approximate

Orientation always refers to the head end first

See Table 13 for full radiocarbon dating results

Cremation-related features

Grave/cenotaph 9095 (burial 9096)

Not illustrated

Circular; steep, straight sides; base unclear (107.64 m OD). 0.32 x 0.29 x ?0.20 m. Loose, friable dark greyish black silty clay with sparse subangular flint & chalk flecks, rare fired clay & abundant charcoal. Most bone found in a small concentration – possibly bagged or similarly contained in northern half of the feature. Cut into solution hollow so base unclear; heavily truncated

Human remains: ?unurned burial & rpd, 5.4 g, adult >40 yr., ?female (?=9105)

Radiocarbon date: 1420–1230 cal BC (Middle Bronze Age)

Grave/cenotaph 9104 (burial 9105; fill 9106)

Fig. 4

Circular; straight, near vertical sides, concave base (107.91 m OD). 0.40 x 0.38 x 0.12 m. Grave backfill: dark reddish brown silty clay with sparse subangular flint & frequent charcoal flecks. Urn fill (burial): dark brown/black mottled clay-silt with angular flint pebbles, common fuel ash. Sparse cremated bone throughout. Just east of Romano-British cemetery group. Horizontally truncated.

Human remains: urned burial & rpd, 49.4 g, adult >40 yr., ?female

ON 7278, samples 9735 & 9936: pottery cinerary vessel. Flat base & lower walls of a fairly vertically-sided, grog-tempered vessel. Thick-walled (10 mm); survives to a height of 90mm; base diameter approx. 180 mm. Buff coloured outer surface & margins; dark grey interior; surfaces untreated; too undiagnostic to date more closely than Early or Middle Bronze Age

Residual finds: 2 pieces (116 g) burnt flint probably collected from pyre site, 1 struck flint

Inhumation graves

Grave 9039 (burial 9040; fill 9041)

Not illustrated

WNW–ESE. Sub-oval; irregular, moderately sloping sides; flat base (108.21 m OD); 1.30 x 0.90 x 0.07 m. Greyish-orange sandy clay fill with frequent flint nodules, sand & gravel. Romano-British *Durotrigian* style *in situ* burial (WNW–ESE), flexed on right side, femora bent 90°, heels to pelvis, arms curved around to front resting over abdomen. NW of working hollow 9025, adjacent to grave 9114.

Human remains: 15% adult >40 yr., ??male

Radiocarbon date: 70–240 cal AD

Grave 9052 (burial 9051; fill 9050)

Fig. 5a

SE–NW. Incomplete (?rectangular); concave, shallow sides; flat base (107.85 m OD); 0.90 x 0.35 x 0.06 m. Light brown-orange silty-clay fill with flint, chalk & small stone inclusions. Romano-British *in situ* burial (SE–NW), slightly flexed, slightly on left side. Truncated by heavy ploughing. Second-furthest north of the linear cemetery group, between graves 9094 & 9125.

Human remains: 5% l. juvenile/subadult 10–15 yr.

Grave goods:

ON 7021: 10 dome-headed iron hobnails, left foot. Shanks broken & missing

ON 7022: 2 dome-headed iron hobnails, right foot. Shanks broken & missing

ON 7023: bone hairpin (in lap region). Head damaged but spherical; shaft has slight median swelling (Crummy 1983, 21–2, type 3) tip missing; surviving length 80 mm. 3rd–4th century AD

Sample 9914 – general: 3 dome-headed iron hobnails. Shanks broken & missing

Grave 9090 (burial 9089; fill 9091)

Fig. 5b

ESE–WNW. Sub-oval; concave, steep–vertical sides; sloping base (108.23 m OD). 1.40 x 0.97 x 0.20 m. Mid-brown silty clay fill with sandy patches; rare chalk & flint nodules. Romano-British *Durotrigian* style *in situ* burial (ESE–WNW), acutely flexed on right side, right knee to elbows, left less flexed, heels to pelvis. Elbows at abdomen, right straight & left flexed with hand by face. Singleton, situated between and parallel to the northern sides of the inner and outer ditches of enclosure A. Grave 9202 lies a short distance to the NW.

Human remains: 68% adult 35–45 yr., ??female

a) redeposited 10% l. subadult 10–15 yr. (= additional individual)

Grave goods:

ON 7024 & 7025: Central Gaulish samian cup form 33; stamped TETTVR by TETTURO of Lezoux, die 3- a; AD 135–165 (Hartley and Dickinson 2012, 53–4). Rim diam. 90 mm, height 48 mm, capacity 110 ml

ABG 7279: articulating sheep/goat humerus & radius found at the foot end of the grave

Residual finds:

20 (112 g) Roman-British pottery, 86 pieces (45 g) animal bone – sheep/goat 2nd phalanx, metapodial, metatarsal, pig atlas and metapodial, rodent long bone and fragments, mammal fragments; 5 (52 g) prehistoric flints

Grave 9094 (burial 9093; fill 9092, also 9109)

Fig.6a

ESE–WNW. Rectangular; straight, steep sides; flat base (107.48 m OD). 2.55 x 0.84 x 0.30 m. Orange-brown silty clay fill with sparse chalk, flint & charcoal fleck inclusions. Romano-British coffined burial (ESE–WNW), extended, supine, right leg slightly flexed to left, knees together. Arms along body, left hand over pelvis, right hand at left elbow. Northernmost grave of the linear cemetery group, adjacent to grave 9052. *Spring/summer burial*

Human remains: 65% adult 40–50 yr., female

Grave goods:

ON 7055: 1 dome-headed iron hobnail; mineral-replaced leather. Area of right shoulder, probably displaced from nailed boots/shoes

ON 7097: iron cleat; outside edge of heel; right boot/shoe. Narrow, bar-shaped, similar to a joiner's dog; arms broken; 55 mm L, 8 mm W, 3 mm T

ON 7101: iron cleat; outside edge of toe; right boot/shoe. Narrow, bar-shaped, similar to a joiner's dog; arms broken; at least 58 mm L, 8 mm W, 3 mm T

ON 7102: 16 dome-headed iron hobnails; area of left foot. Mineral-replaced leather & shanks clenched 8 mm under heads

ON 7103: 33 dome-headed iron hobnails; area of right foot. Mineral-replaced leather & shanks clenched 8 mm under heads.

ABG 7104: Sheep, 2–6 months, outside coffin, north side of grave. Animal's head at human hip, feet at human shoulder, with its back along coffin, legs at grave edge, skull awkwardly back/twisted round

sample 9958 – base of grave: 3 dome-headed iron hobnails; mineral-replaced leather

Coffin furniture:

ON 7027–30, 7032–40, 7043–50, 7054, 7056, 7082, 7088–91, 7095–6 & sample 9951: 32 iron nails, outlining coffin, concentrated at head/foot. Flat, round heads, square-sectioned, tapering shanks, up to 80 mm long. Mineral-replaced wood indicates planks 35 mm thick; right-angled bends indicate total thickness of 35–40 mm

Residual finds:

4 (46 g) struck flint flakes; 2 pieces (1 g) animal bone (sample 9950; sheep/goat incisor and pelvis fragment)

Grave 9097 (burial 9098; fill 9099)

not illustrated

NE–SW. Sub-rectangular; steep sides; flat base (107.06 m OD). 2.70 x 1.10 x 0.85 m. Mixed light-mid-grey-brown silty clay fill with common chalk pieces. RB coffined burial (NE–SW), extended & slightly turned to right, left leg flexed to right (knees together). Hands crossed over pelvis. Backward slumping of left shoulder & humerus. Situated on the western edge of the linear cemetery group, at foot end of grave 9126 & lay between the foot end of grave 9154 and 9076, one of the western ditch elements of enclosure C.

Human remains: 96% subadult 16–17 yr., ??female

Coffin furniture:

ON 7041–2 , 7051, 7053, 7057–74, 7076–81, 7083–86, 7092–94, 7098–7100, samples 9939–40 & 9943: 42 iron nails, outlining coffin, concentrated at head/foot. Flat, round heads, square-sectioned, tapering shanks,

up to 100 mm long. Mineral-replaced wood indicates planks at least 15–20 mm thick; right-angled bends indicate total thickness of 40–45 mm

ON 7075: flat, roughly rectangular iron plate, centrally placed, foot end of coffin. Unclear whether any edges are original; function unknown. 50 mm L, 32 mm W, 3 mm T

Residual finds:

2 (24 g) struck flint flakes, 8 pieces (14 g) animal bone – rodent long bone and vertebra, mammal fragments, as well as a bird humerus and carpometacarpus (head end of grave), tibiotarsus and 1st phalanx (foot end of grave). Four sherds (48 g) Bronze Age pottery; 1 sherd (4 g) Romano-British pottery

Grave 9114 (burial 9115; fill 9116)

Not illustrated

NW–SE. Sub-rectangular; straight, steep sides & sloping base (108.04 m OD). 1.11 x 0.70 x 0.20 m. Mid-red-brown clay fill with sparse flint inclusions & charcoal flecks. Romano-British *Durotrigian* style *in situ* burial (NW–SE), flexed, supine. Knees flexed >45°, left femur 90° to body, over right hip, feet level with pelvis, ?head propped up. Immediately NW of working hollow 9025 & adjacent to grave 9039.

Human remains: 40% juvenile 10–11 yr.

Radiocarbon date: 70–240 cal AD

Grave 9125 (burial 9124; fill 9123, also 9153)

Fig. 6b

SE–NW. Rectangular; concave, steep sides; flat base (107.85 m OD). 1.73 x 0.80 x 0.46 m. Orange-brown silty clay fill with flint, chalk & gravel inclusions. Romano-British coffined decapitation burial (SE–NW), extended, supine with left leg slightly turned out. Skull & mandible between knees on grave base, facing right mid-femur & lying on left side. Right arm slightly flexed, hand at right hip, left arm along body, bent at elbow & lying across abdomen. One of the northern graves within the linear cemetery group, between graves 9052 & 9133, & incidentally immediately NW of pit 9095. *Spring burial*

Human remains: 60% juvenile 9–10 yr.

Grave goods:

ON 7165, sample 9972: 29 dome-headed iron hobnails (left foot). Mineral-replaced leather under heads; shanks clenched 10 mm under heads

ON 7166, sample 9973: 25 dome-headed iron hobnails (right foot). Mineral-replaced leather under heads; shanks broken

ABG 7167: Sheep, 0–2 months, outside coffin, south side of grave. Animal's head just below level of human knee, legs together at human hip

Coffin furniture:

ON 7111–12, 7118–25, 7140–47, 7149–54 and 7164: 24 iron nails, outlining coffin with two nailed reinforcing boards. Flat, round heads, square-sectioned, tapering shanks, up to 60 mm long. Mineral-replaced wood and nails with right-angled bends indicate plank thickness of 20 mm

Residual finds: 4 pieces (15 g) Romano-British pottery, 3 struck flints (47 g)

Grave 9126 (burial 9127; fill 9128)

Fig. 7a-d

ESE–WNW. Sub-rectangular; steep, vertical sides; flat base (107.10 m OD). 2.38 x 0.81 x 0.83 m. Mixed, very light grey-brown to greyish-yellow-brown silty clay fill with common chalk & occasional flint nodules. Romano-British coffined burial (E–W), extended & supine. One of the central graves within the linear cemetery group, between graves 9154 and 9133; grave 9097 lay to the W and 9195 to the E.

Human remains: 18% adult >30 yr.

Grave goods:

ON 7162 & 7276, samples unnumbered, 9960–1 & 9965–6, associated with corner bracket ON 7115: 93 dome-headed iron hobnails, including fused groups with heads almost touching; extensive mineral-replaced leather but shanks broken & missing

Coffin furniture:

ON 7114–17: upper iron corner brackets. Equal arms; fixed with sub-square headed nail (square-sectioned, tapering shanks) through perforations in terminals (all at least partially surviving *in situ*). Mineral-replaced wood, longitudinal grain, on inner surface of each arm. At least one additional nail found inside the corner of each bracket – see below

ON 7114: SW, one expanded, rounded terminal, one square & plain. Arms 95 mm L, 30–35 mm W

ON 7115: NW, expanded, rounded terminals. Arms 85 mm L, 25–35 mm W

ON 7116: NE, expanded, rounded terminals. Arms 85 mm L, 30–35 mm W

ON 7117: SE, expanded, rounded terminals. Arms 85 mm long, 25–30 mm W

ON 7126–7129: lower iron corner brackets. Equal arms; fixed with sub-square headed nails (square-sectioned, tapering shanks) through perforations in terminals (all at least partially surviving *in situ*). Mineral-replaced wood, longitudinal grain, on inner surface of each arm & nail shanks. At least one additional nail found inside the corner of each bracket – see below

ON 7126: SW, expanded, rounded terminals. Arms 90 mm L, 30–40 mm W

ON 7127: NW, expanded, rounded terminals. One arm has additional perforation 15 mm from corner. Arms 90 mm L, 30–40 mm W

ON 7128: NE, expanded, rounded terminals. Arms 85 and 90 mm L, 30–40 mm W

ON 7129: S, expanded, rounded terminals. Arms 95 mm L, 30–40 mm W

ON 7132 & 7133 (joining): iron binding, centrally positioned (beneath upper thighs of the body) on underside of coffin. Strip with plain, square terminals & 2 right-angled bends. Fixed with 2 sub-square headed nails (40 mm & 55 mm apart) in each of the vertical side sections & 5 across the base (100–120 mm apart), some at least partially surviving *in situ*. Mineral-replaced wood, longitudinal grain, on inner surface, particularly corners. 760 mm L, 43 mm W; base of coffin 520 mm W, vertical sections each 120 mm L

ON 7130–1 & 7134–5: iron base brackets, positioned 0.1m in from corners of coffin. Arms of pair on S side (ON 7130 & 7134) equal, while those of ON 7131 and 7135 differ slightly. Fixed with sub-square headed nails (square-sectioned, tapering shanks) through perforations in terminals (all at least partially surviving *in situ*). Mineral-replaced wood, transverse grain, on inner surface of each arm & nail shanks

ON 7130: SW, expanded, rounded terminals. Arms 85 mm L, 30–40 mm W

ON 7131: NW, expanded, rounded terminals. Arms 90 & 100 mm L, 30–40 mm W

ON 7134: SE, expanded, rounded terminals. Arms 80 mm L, 30–40 mm W

ON 7135: NE, expanded, rounded terminals. Arms 80 & 90 mm L, 25–35 mm W

ON 7136–7, 7148, 7159–61, samples 9960–1, 9963–6 & 14 unnumbered, associated with upper & lower corner brackets: 33 iron nails, outlining coffin & with at least one found inside each of the 8 corner brackets, apparently diagonally across corner joint. Flat, round or sub-square heads, square-sectioned, tapering shanks; up to 65 mm long. Mineral-replaced wood & right-angled bends indicate planks 20–35 mm thick

Residual:

2 sherds (9 g) residual Bronze Age pottery; 1 scrap (3 g) Romano-British pottery; 2 pieces (1 g) animal bone – 1st and 3rd phalanx of a bird

Grave 9133 (burial 9132; fill 9131)

Not illustrated

ESE–WNW. Sub-rectangular; straight, steep sides; flat base (107.45 m OD). 1.93 x 0.63 x 0.44 m. Brownish-orange silty clay fill with sparse chalk, flint & gravel inclusions. Romano-British coffined burial (E–W), extended & supine. Slightly turned to right, hands between femora. One of the central graves within the linear cemetery, between graves 9125 and 9126. Grave 9195 lay immediately to the east.

Human remains: 55% adult 45–55 yr., female

Grave goods:

ON 7221, samples 9727 & 9987: 47 dome-headed iron hobnails, area of left foot. Shanks mostly broken but 1 or 2 bent to right-angles 10 mm under heads; mineral-replaced leather under heads

Sample 9726: 16 dome-headed iron hobnails, area of right foot. Shanks mostly broken but 1 or 2 bent to right-angles 10 mm under heads; mineral-replaced leather under heads

Samples 9727 and 9987 – area of left foot: 17 dumb-bell shaped copper alloy rivets, probably used to decorate the leather upper of the boots/shoes. 1 mm L, 1 mm D

Coffin furniture:

ON 7138–9, 7185–6, 7189, 7199–7207 & 7213–6: 18 iron nails, clustered in 2 horizontal rows at head end of coffin and in knee region. Flat, round heads, square-sectioned, tapering shanks; up to 70 mm long. Mineral-replaced wood indicates planks 15–20 mm thick; right-angled bends indicate total thickness of 40 mm

Residual: 10 sherds (127 g), Late Romano-British pottery, 5 (44 g) flint flakes

Grave 9154 (burial 9155; fill 9156, also 9180)

Pl. 4

SE–NW. Sub-rectangular; straight, steep sides; flat base (107.23 m OD). 2.73 x 0.90 x 0.76 m. Possible stakehole in base (0.09 x 0.07 x 0.10 m) left of left pelvis (not numbered). Very light & mixed grey-brown silty clay fill with common chalk & occasional flint nodules. Late Romano-British coffined burial (SE–NW), extended & supine with left ankle crossed over right & right arm along body. Second most-southern grave of the linear cemetery group, between graves 9199, 9154 and 9126. *Autumn/winter burial*

Human remains: 55% a.u.l., adult 40–45 yr., male

Grave goods:

ON 7194, 7196 & sample 9977: 108 dome-headed iron hobnail, left foot. Large, well-preserved (head diam. 10 mm, up to 25 mm L), with extensive mineral-replaced leather; shanks clenched 10–12 mm under heads. Fused group (ON 7196; 5 hobnails) indicate positioning with heads almost touching

ON 7195 & samples 9976 & 9978: 79 dome-headed iron hobnail, right foot. Large, well-preserved (head diam. 10 mm, up to 22 mm L), with extensive mineral-replaced leather; shanks clenched 10–12 mm under heads. Fused groups indicate positioning with heads almost touching

ABG 7197 & samples 9980–1: Sheep, 6–12 months, outside coffin, north side of grave. Animal's head level with human shoulder, extending to mid left femur (animal's back legs outstretched)

Coffin furniture:

ON 7171–4, 7176–9, 7187–93: 14 iron nails, outlining coffin. Flat, round heads, square-sectioned, tapering shanks; traces of mineral-replaced wood, mostly transverse grain. 60–70 mm L

Residual finds: 4 sherds (309 g) Late Romano-British pottery

Grave 9195 (burial 9196; fill 9197)

Pl. 5

SSW–NNE. Sub-rectangular; straight, steep sides; flat base. 2.06 x 0.70 x 0.37 m (base at 107.55 m OD). Mid grey-brown clay-silt fill with abundant chalk, flint & gravel. RB coffined burial (SSW–NNE), extended & supine with left ankle crossed over right and right arm along body. Eastern-most grave within the linear cemetery group, adjacent to graves 9133 and 9126. *Spring/summer burial*

Human remains: 90% adult 40–50 yr., male

Grave goods:

ON 7259, samples 9707–8 & 9711: 95 dome-headed iron hobnails; area of feet. Mineral-replaced leather and shanks clenched 8–10 mm under heads. Head diam. 8–10 mm, up to 20 mm L

ABG 7261: Sheep, 2–6 months; outside and underneath coffin at foot of grave, back of animal adjacent to grave edge, head to west

Coffin furniture:

ON 7198, 7208–12, 7217–20, 7252–8, bulk finds & samples 9705, 9710 & 9732: 23 iron nails, outlining coffin. Flat, round heads, square-sectioned, tapering shanks up to 70 mm L; mineral-replaced wood indicates use of planks 20 mm thick

Residual finds: 1 piece (1 g) animal bone –ulna, domestic fowl, 2 (7 g) prehistoric flint flakes

Grave 9199 (burial 9200; fill 9201)

Figs 8 a-b

SE–NW (towards ESE–WNW). Sub-rectangular with stepped, steep sides; flat base (107.41 m OD). 2.45 x 1.13 x 0.19 m. Mid brown clay loam fill with common chalk & flint inclusions. Romano-British coffined burial (SE–NW), extended & supine with left arm alongside. Right elbow flexed, hand over left pelvis. Southernmost grave of the linear cemetery group, adjacent to grave 9154 and within the narrow space between western elements of enclosure C.

Human remains: 80%, adult 35–45 yr., ??female

a) 2 redeposited frags u.l., adult >18 yr. = ?9127; ?9132; ?9155

Coffin furniture:

ON 7223, 7228–9 & 7234: iron brackets, upper corners of coffin. Equal arms (95 mm L, 30 mm W) with plain, squared terminals; fixed with round headed nails (square-sectioned, tapering shanks) through perforations in each terminal. Mineral-replaced wood, longitudinal grain, on inner surfaces

ON 7223: SE corner. Also 1 additional nail (flat, round head, square-sectioned, tapering shank, 68 mm L) and a nail shank fragment, both with mineral-replaced wood, transverse grain

ON 7228: NE corner

ON 7229: NW corner. Also 1 additional nail (flat, round head, square-sectioned, tapering shank, 70 mm L; bent to a J-shape 40 mm under head. Mineral-replaced wood, transverse grain, on shank

ON 7234: SW corner. Fixing nails bent to right-angles 25 & 30 mm under inner surface of bracket, indicating thickness of planks used

ON 7224–7, 7230–3, 7265–74: 19 iron nails, outlining coffin. Flat, round heads, square-sectioned, tapering shanks; 65–80 mm L. Mineral-replaced wood indicates use of planks 20–35 mm thick; bent nails (ON 7224–6, 7231, 7266 & 7268) indicate full thickness of 40–50 mm

Residual finds:

6 pieces (98 g) animal bone – frog pelvis and long bone, sheep/goat 1st/2nd molar, cattle mandible, mammal fragments, 2 (17 g) prehistoric flint flakes, 2 sherds (8 g) Roman pottery

Grave 9202 (burial 9203; fill 9204)

not illustrated

NW–SE. Sub-rectangular; steep, straight sides; flat base (107.99 m OD). 1.95 x 0.63 x 0.50 m. Mid-brown silty clay fill with bright brown clay patches, common chalk & sparse flint inclusions. Romano-British coffined burial (NW–SE), extended & supine with arms along sides. Situated along the outer edge of, and midway along, the northern outer ditch of enclosure A, to the SE of working hollow 9025.

Human remains: 65%, adult >45 yr., female

Grave goods:

ON 7248 & sample 9716: 35 dome-headed iron hobnails, left foot. Shanks bent 8–10mm under heads; mineral-replaced leather within bend. 22 mm L

ON 7250 & sample 9717: 28 dome-headed iron hobnails, right foot. Shanks bent 8–10mm under heads; mineral-replaced leather within bend. 23 mm L

Sample 9714 – area of skull: 1 dome-headed iron hobnail. Incomplete; straight shank, traces of mineral-replaced leather

Sample 9720 – base of grave: 8 dome-headed iron hobnails. Shanks bent; traces of mineral-replaced leather

Coffin furniture:

ON 7235–47, 7249, 7251, 7263–4, 7277 & sample 9720: 22 iron nails, outlining coffin. Flat, round heads, square-sectioned, tapering shanks; 48–78 mm L. Mineral-replaced wood indicates planks 15–20 mm thick; right-angled bends indicate total thickness of 32–38 mm

Residual finds: 29 undiagnostic sherds (229 g) Romano-British pottery; 2 featureless fragments (5 g) fired clay

Figure 1 Site location and plan

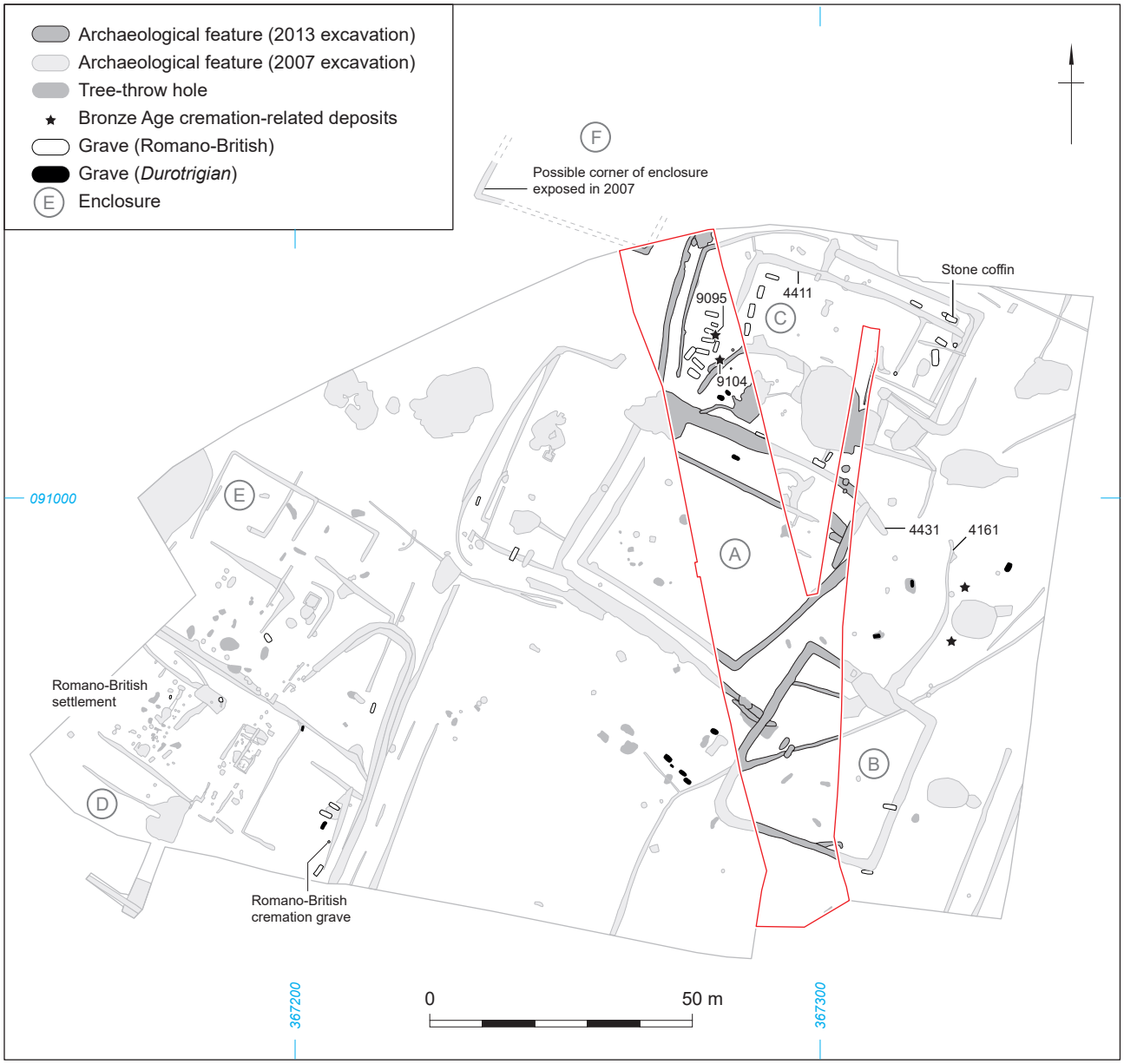

Figure 2 Site plan within surrounding archaeological setting

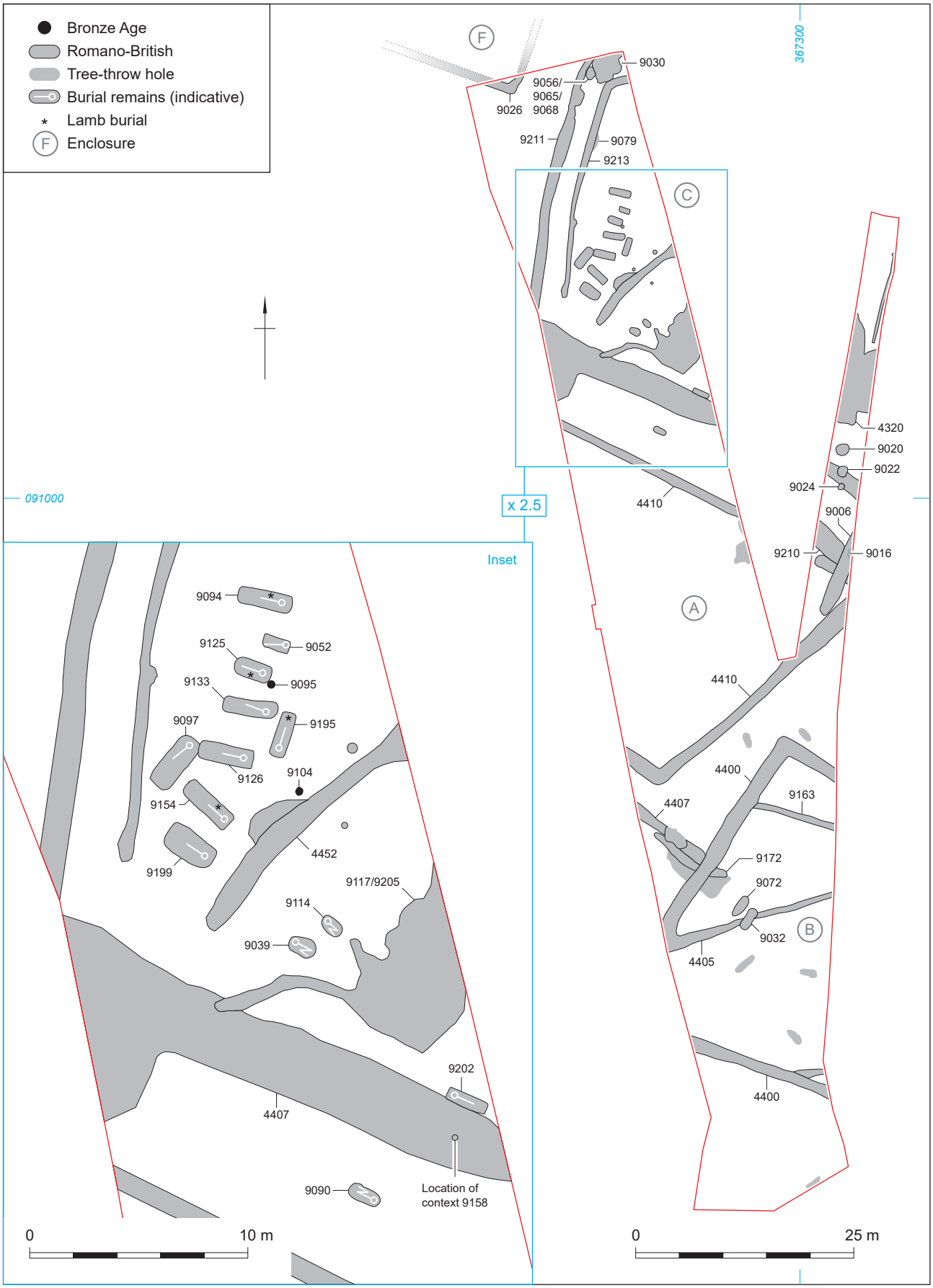

Figure 3 Site plan detail

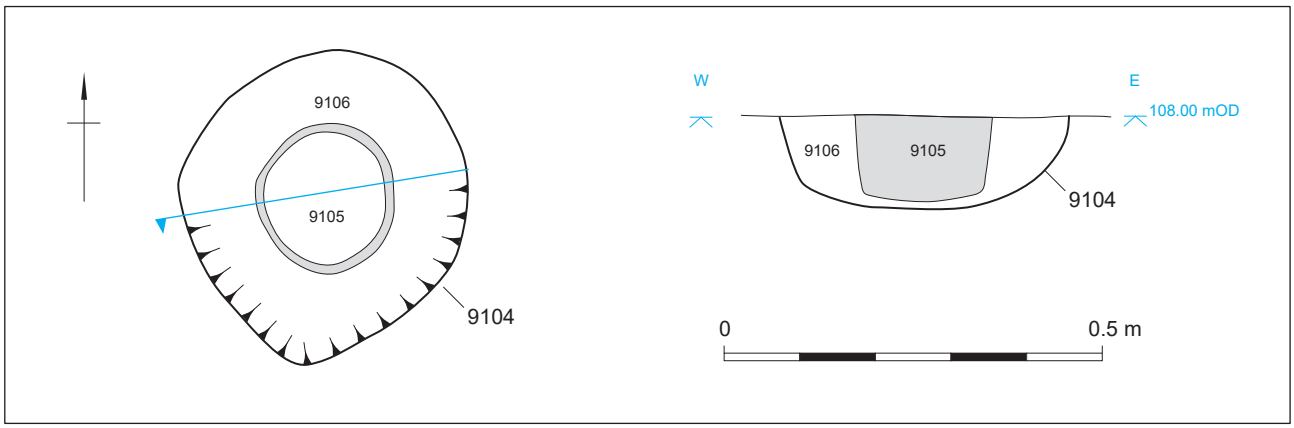

Figure 4 Section and plan of urned cenotaph 9105 within grave 9104

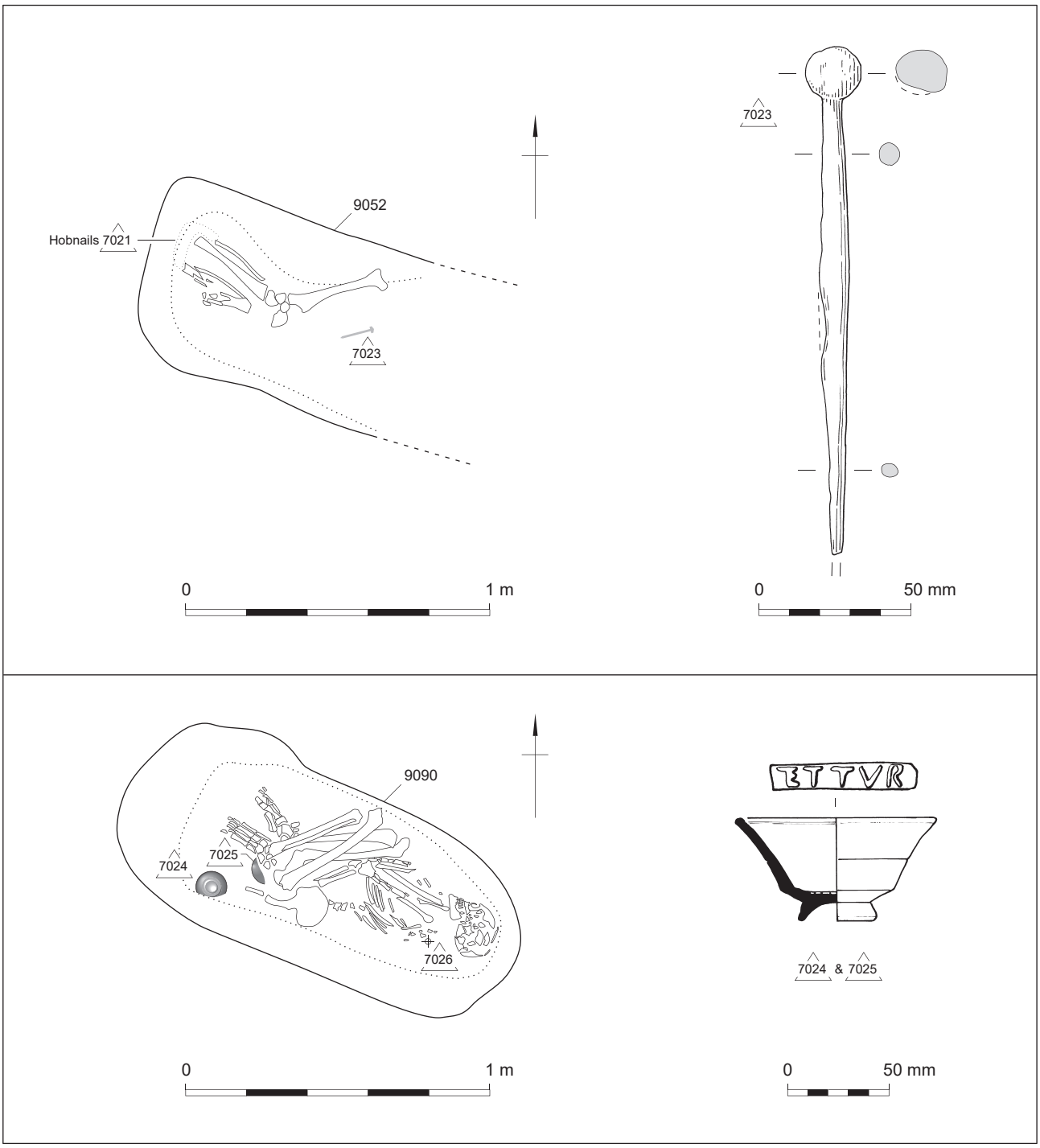

Figure 5 (a) Romano-British grave 9052 with burial remains 9051 and bone pin ON 7023
(b) Durotrigian grave 9090 with burial remains 9089 and vessel ON 7024/5

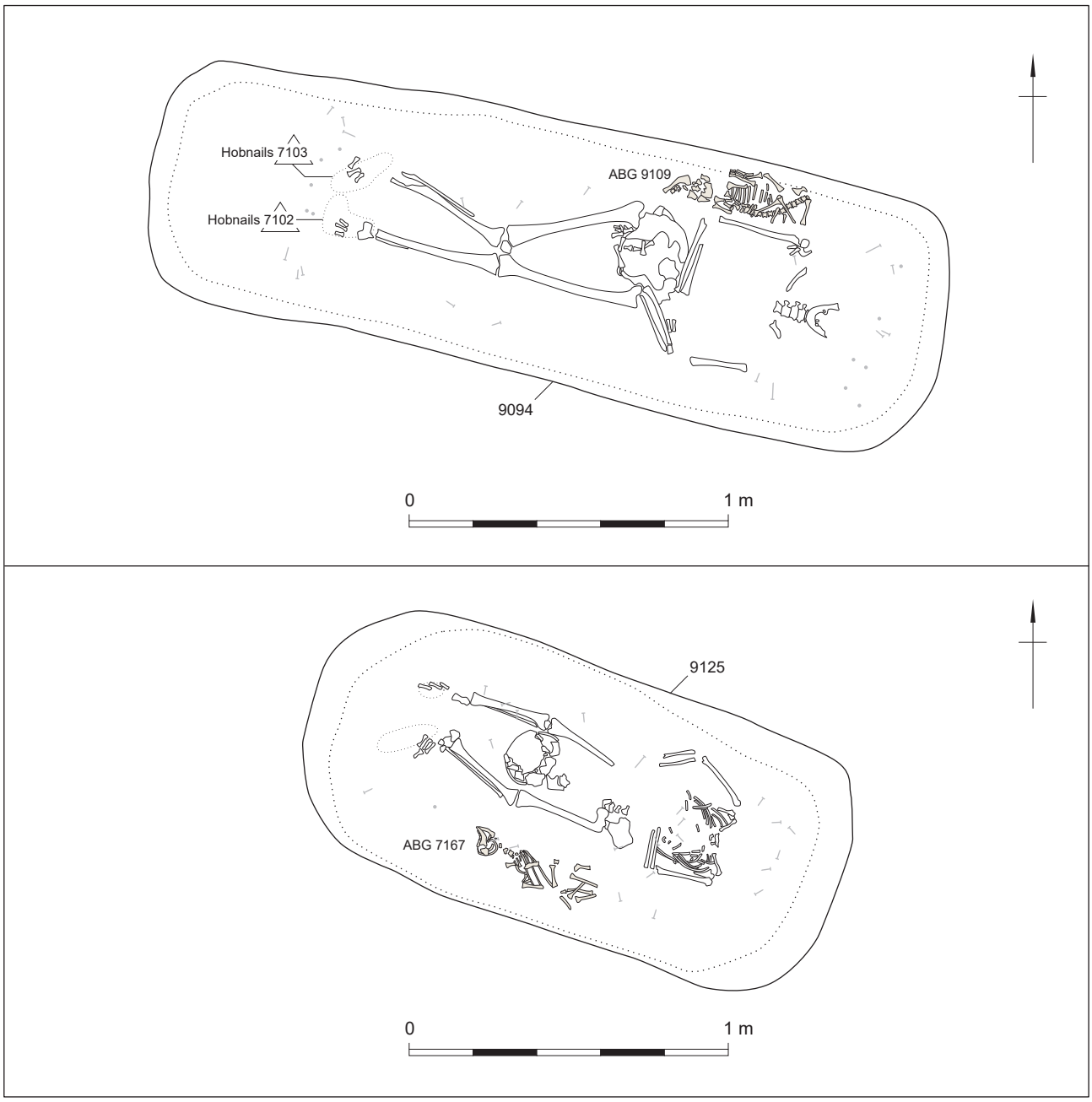

Figure 6 (a) Romano-British grave 9094 with burial remains 9093 and sheep ABG 9109
(b) Romano-British grave 9125 with remains of decapitation burial 9124 and sheep ABG 7167

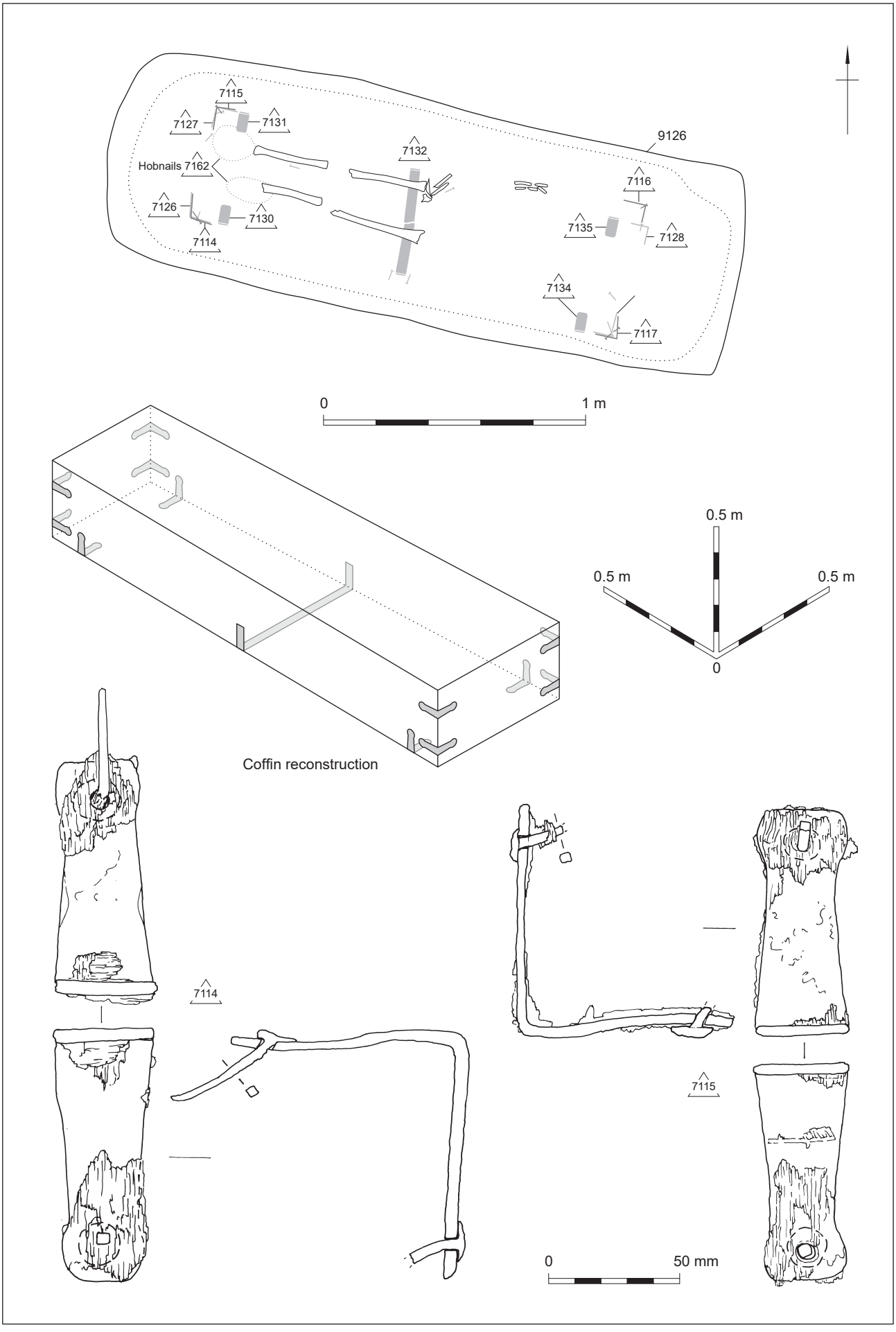

Figure 7a Romano-British grave 9126 with burial remains 9127, a coffin reconstruction diagram and coffin fittings

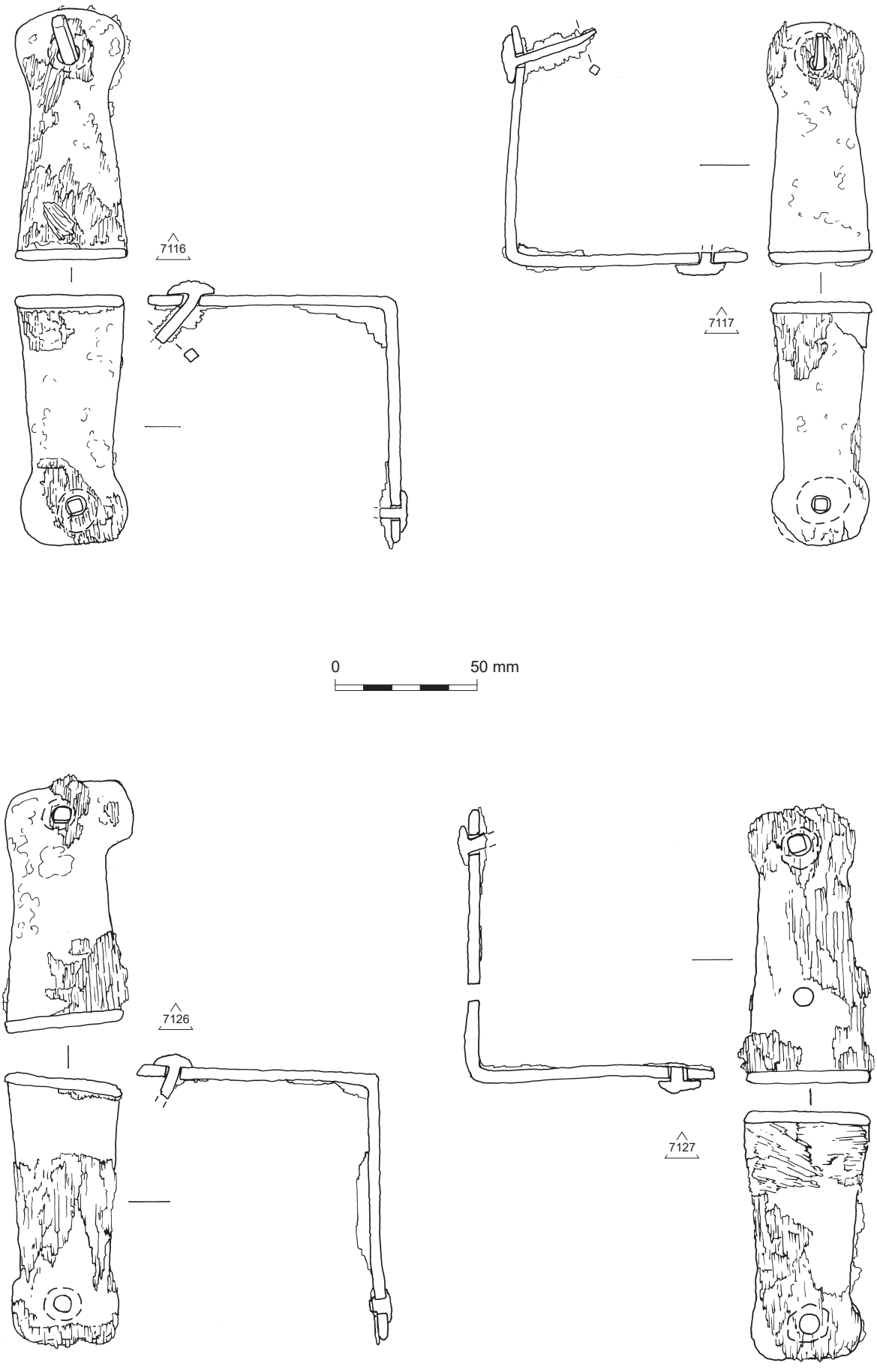

Figure 7b Coffin fittings from Romano-British grave 9126 (continued)

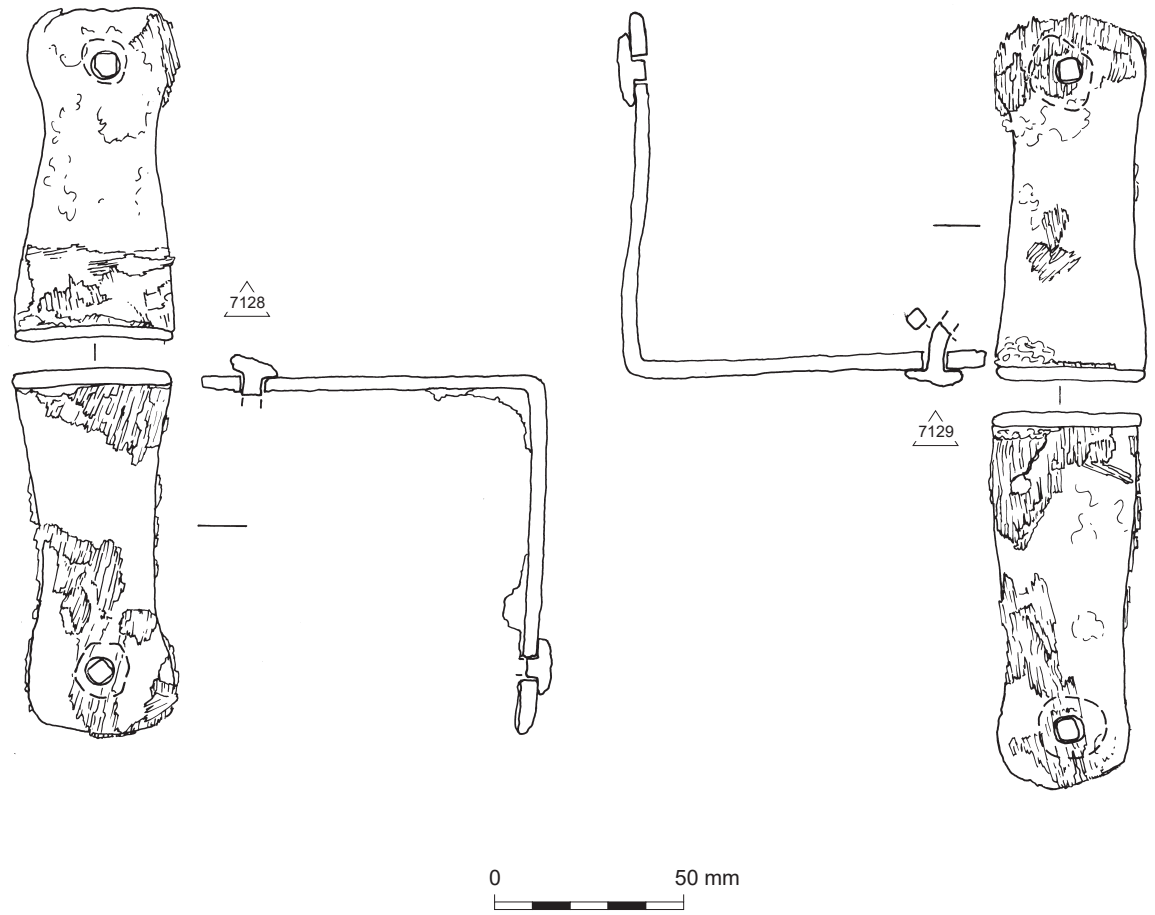

Figure 7c Coffin fittings from Romano-British grave 9126 (continued)

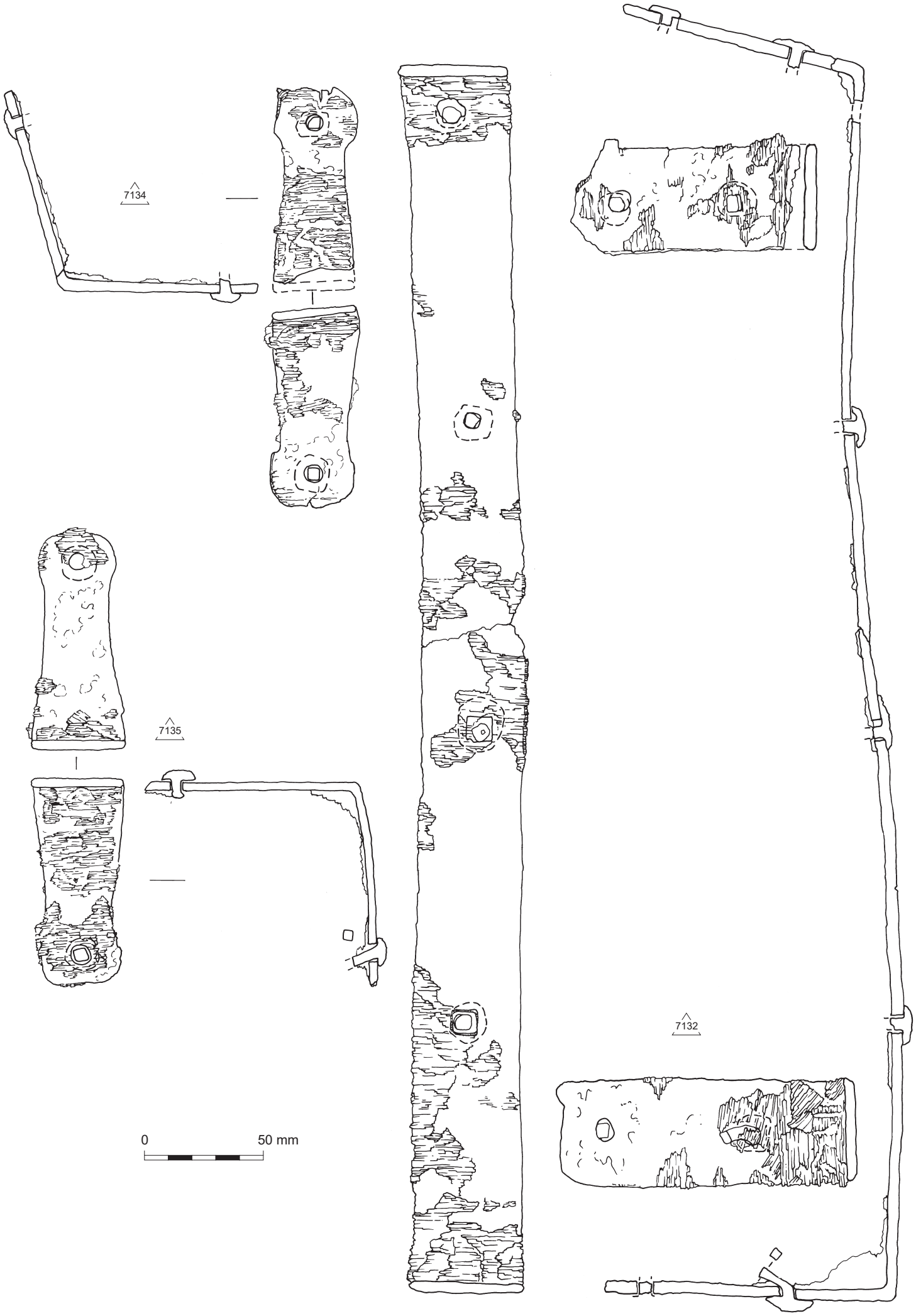

Figure 7d Coffin fittings from Romano-British grave 9126 (continued)

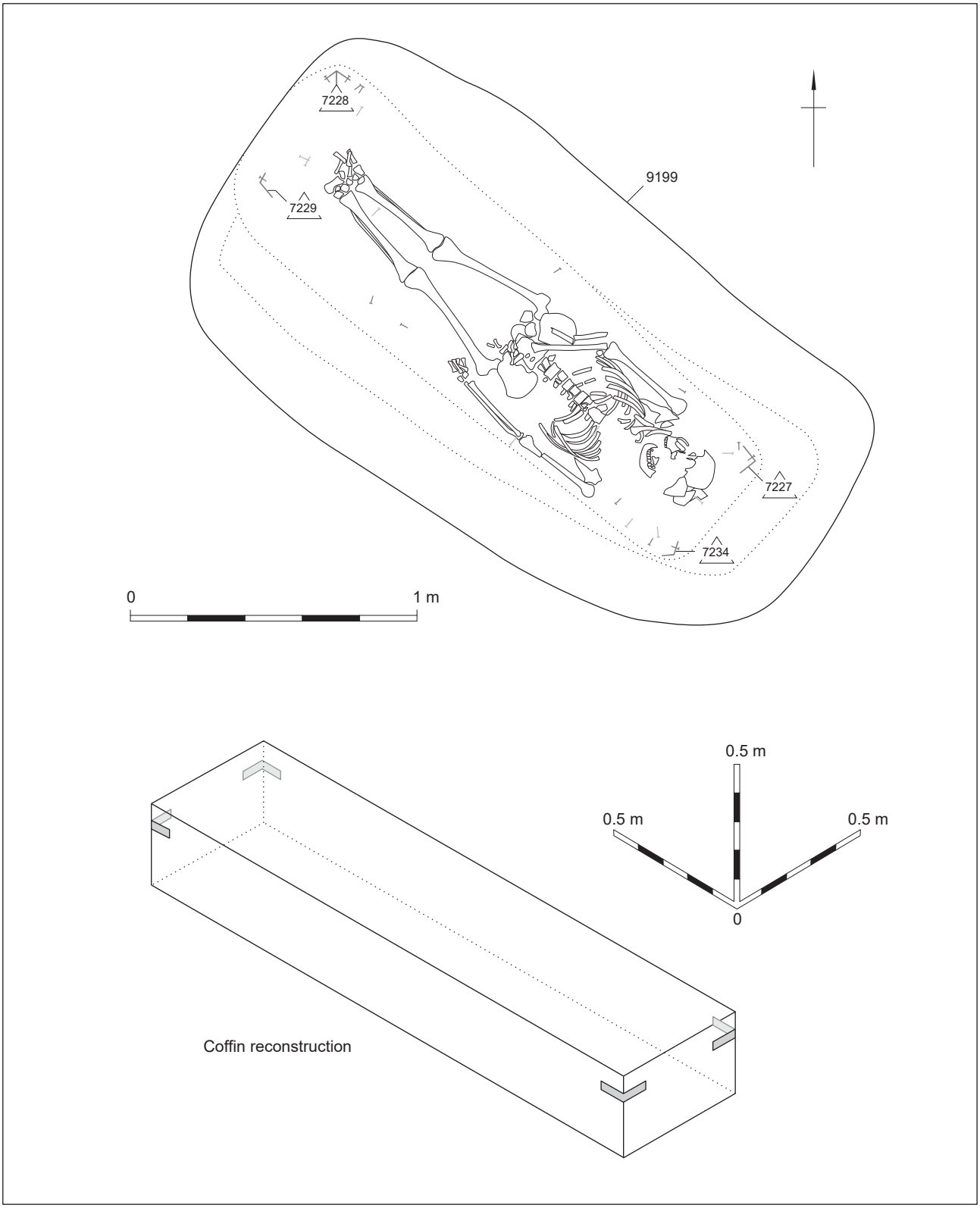

Figure 8a Romano-British grave 9199 with burial remains 9200 and a coffin reconstruction diagram

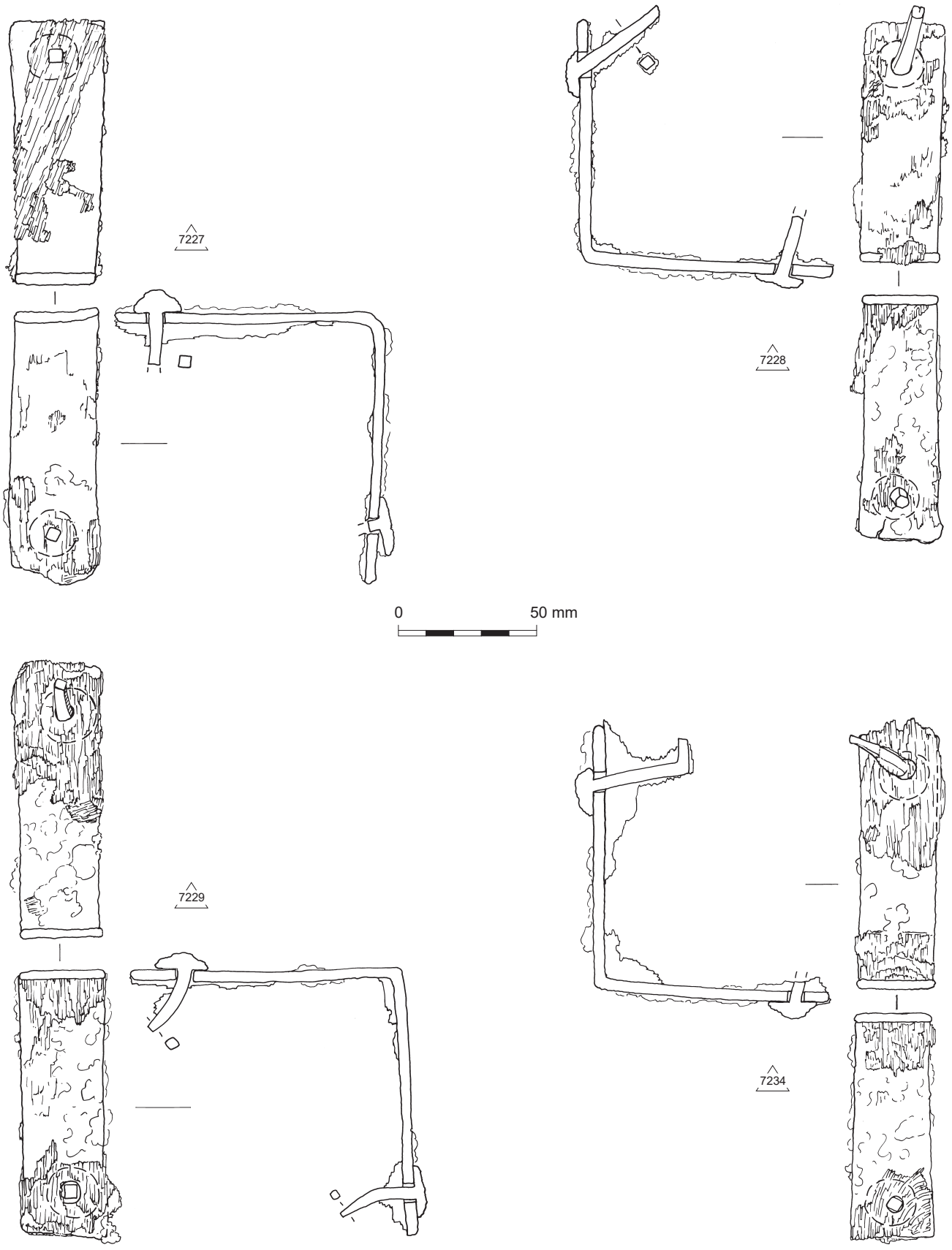

Figure 8b Coffin fittings from Romano-British grave 9199

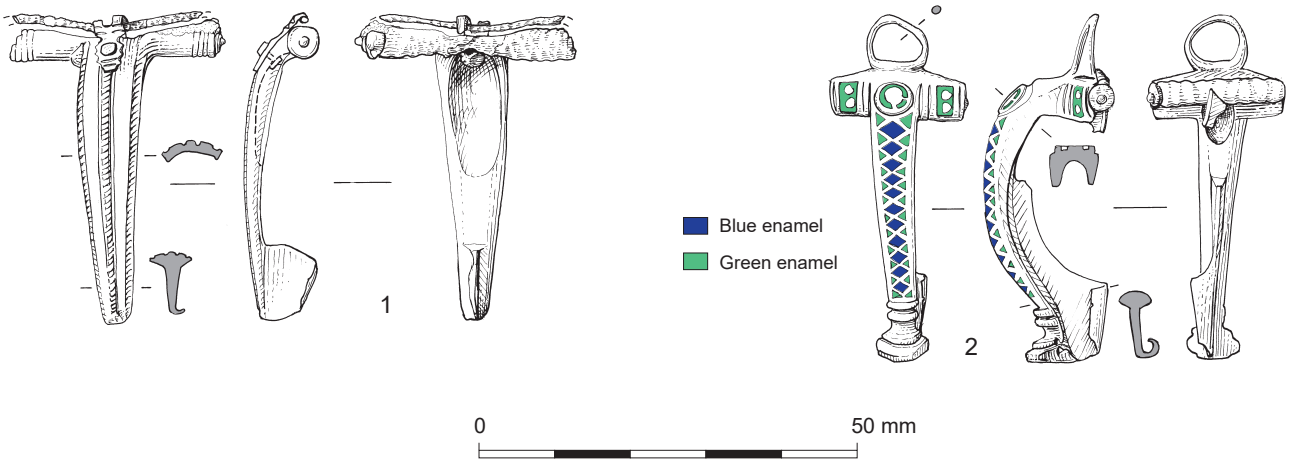

Figure 9 (1) Copper alloy brooch ON 7175 from outer ditch of enclosure A (context 9159)
(2) Copper alloy brooch ON 7158 featuring blue and green enamelling, from outer ditch of enclosure A (context 9159)

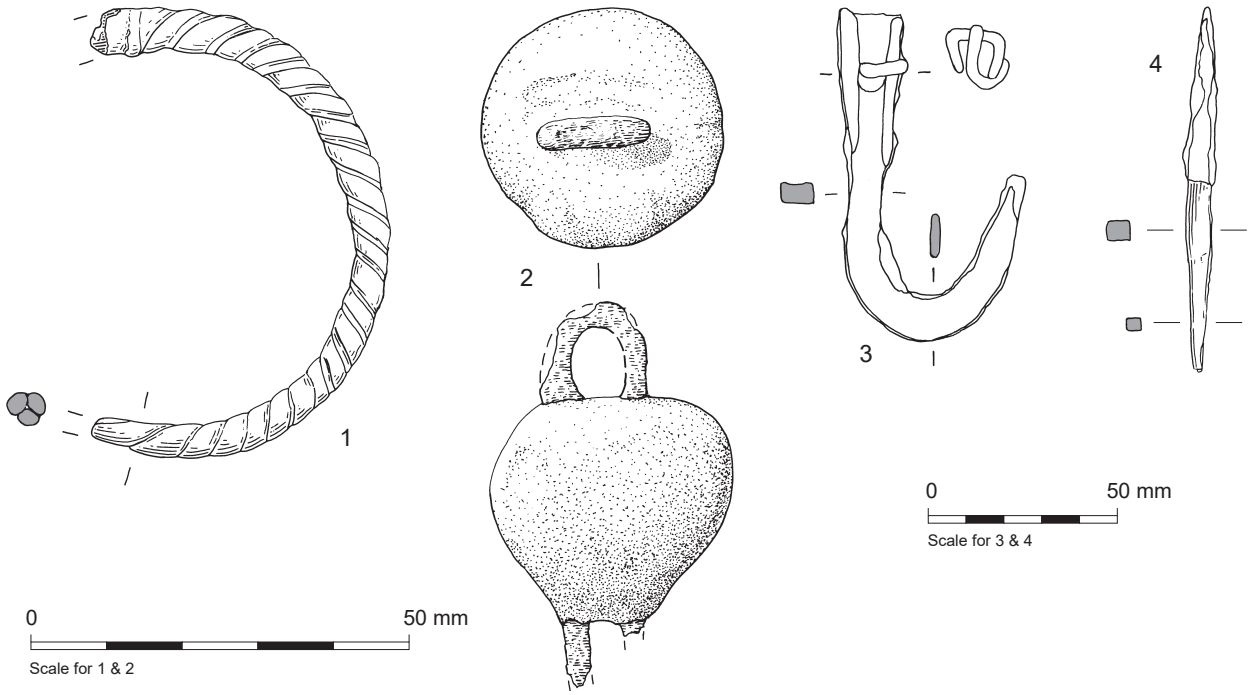

Figure 10 (1) Copper alloy bracelet ON 7000 from inner ditch of enclosure A 4410 (context 9002)
(2) Lead steelyard weight ON 7001 from inner ditch of enclosure A 4410 (context 9003)
(3) Socketed iron hook ON 7003 from inner ditch of enclosure A 4410 (context 9005)
(4) Iron awl 7109 from working hollow 9205 (context 9121)

Figure 11 (1) Black burnished ware jar from outer ditch of enclosure A 4407 (context 9160)
(2) Black burnished ware dish/lid from enclosure B 4400 (context 9081)
(3) Black burnished ware imitation Gallo-Belgic dish from inner ditch of enclosure A 4410 (context 9198)

Plate 1 Corner of enclosure F, viewed from the south-east, looking towards the Frome Valley. 1 m scale

Plate 3 Oven 9032, viewed from the north-east. 2 m and 0.5 m scales

Plate 2 South-east facing section of oven 9032. 2 m scale

Plate 4 Grave 9154 containing the remains of a lamb, placed along the side of the right arm of burial remains 9155. 2 m and 0.5 m scales

Plate 5 Grave 9195 containing the remains of a lamb placed at the feet of burial remains 9196. 1 m scale

Plate 6 Defects (indicated by arrows) demonstrating fibrous coalition of the right middle cuneiform and third metatarsal of the adult male buried in grave 9154. Opposing sides of the tarso-metatarsal joint shown.

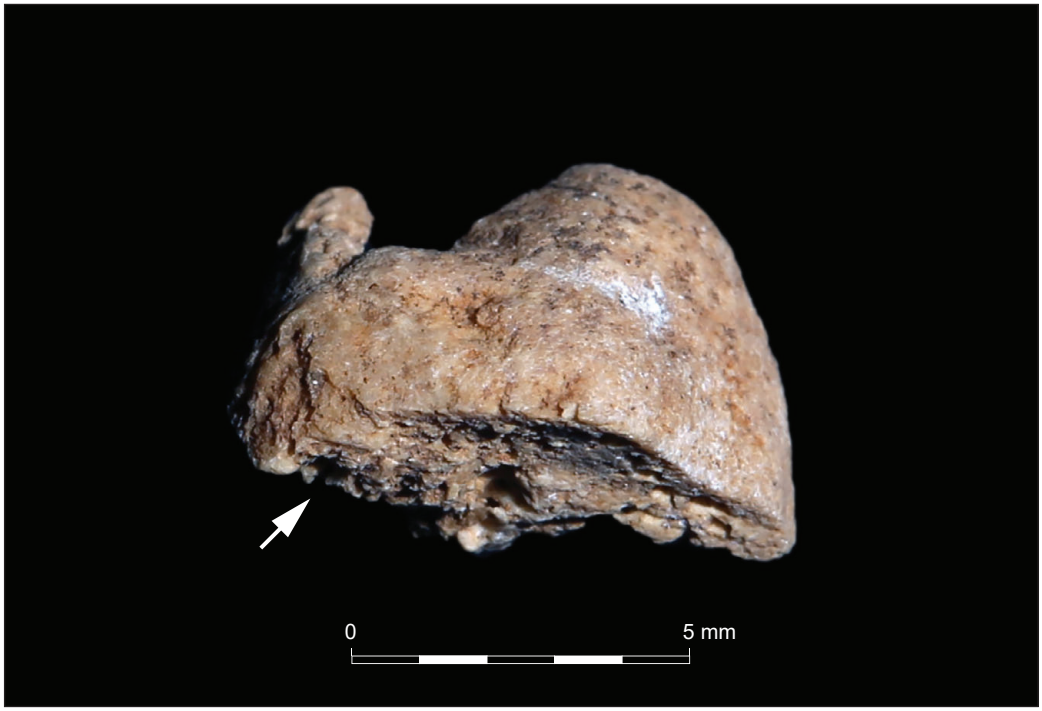

Plate 7 Severed tip of the dens, part of the second cervical vertebra, viewed from the anterior. A distinct, transverse sharp blade incision is visible along the bottom of the fragment, indicated by an arrow. Decapitated juvenile 9124, grave 9125.

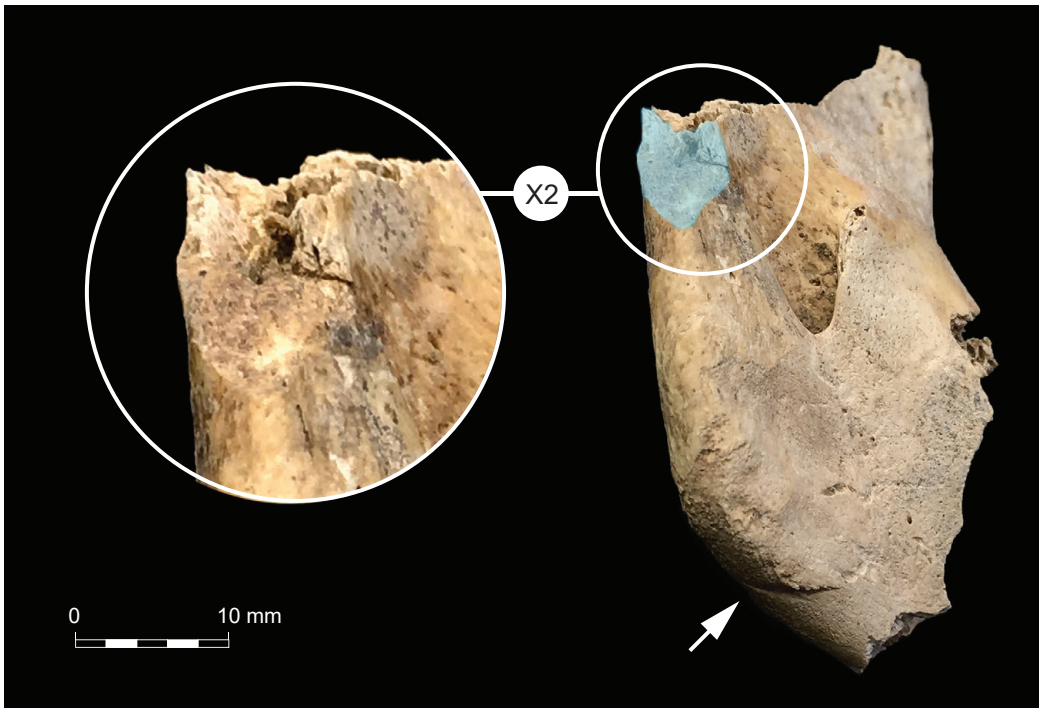

Plate 8 Medial aspect of the left mandible of juvenile 9124 from grave 9125, viewed from the posterior. Arrow and shading indicate injuries caused by two of the incisions made during the decapitation process.

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